Multi-Floor Renovation Project
Environmental Protection Agency (EPA)
Region 8 Headquarters Building

Indoor Air Quality Assessment Project
January, 2018- January, 2019

Developed For:

Chad Bartlett
Boots Construction
4949 S. Syracuse St. #450
Denver, CO 80237

Developed By:

Alex Green
Operations Manager
S&R Environmental Consulting, Inc.
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February 7, 2019

Mr. Chad Bartlett
Boot Construction
4949 S. Syracuse St. #450
Denver, CO 80237

RE: Indoor Air Quality Assessment Project
Boots Construction Multi-Floor Renovation Project
Environmental Protection Agency (EPA)- Region 8 Headquarters Building
1595 Wynkoop St.
Denver, CO 80202
S&R Project Number: 018013

Dear Mr. Bartlett,

S&R Environmental Consulting, Inc. (S&R) is pleased to provide the following report of findings from the indoor air quality (IAQ) air sampling and testing conducted at the Environmental Protection Agency (EPA)- Region 8 Headquarters Building in Denver Colorado. S&R understands that the Boots Construction and the EPA was looking for an environmental consulting company to conduct IAQ assessments before and after renovations to several areas of the building spaces. This document is prepared by S&R Industrial Hygienists with many years of experience with IAQ issues along with conducting numerous Leadership in Energy and Environmental Design (LEED) green building certifications for air quality credits.

UNDERSTANDING OF THE SITUATION

S&R understands that Boots Construction along with the EPA was seeking a professional environmental consulting company to conduct air quality testing prior to several phased, renovation projects throughout the building in order to establish a baseline level for overall air quality. In addition, S&R also conducted air quality testing following the completion of the renovation work in the building spaces in order to verify that general air quality levels were within the previous sampled baseline limits. The specific work areas of testing were a variety of

different sized spaces on 2nd, 3rd, 4th, 5th, 6th and 7th floors. Some minor testing was also conducted in the 1st floor lobby, but was not part of the renovation project. S&R understands that the building renovation project was scheduled to take place in multiple phases throughout 2018 with completion date in early 2019.

SCOPE OF WORK

S&R was contracted by Boot's Construction along with guidance from the EPA to conduct IAQ testing methods at the EPA building located in downtown Denver prior to and following the renovation work. S&R has been instructed to conduct pre-construction testing and post-construction clearance testing of the six (6) work spaces/phases identified above. All IAQ testing methods were conducted according to the LEED v4 Indoor Air Quality Testing for New Construction when applicable; however no LEED credits were being sought for during this project. Other best practice methods were incorporated for all testing procedures during the sampling times. While this is not an LEED accreditation project; S&R and the EPA have elected to use these values as ideal levels for clearances. Please see the table below for the established values.

IAQ Established Limits

Contaminant	Maximum Allowable Concentration
Formaldehyde	27 parts per billion (ppb)
Particulates (PM10)	50 micrograms per cubic meter (µg/m³)
Total Volatile Organic Compounds (TVOC)	500 µg/m³
Carbon Monoxide (CO)	9 parts per million (ppm)
4-Phenylcyclohexene (4-PCH)	6.5 µg/m³
Caprolactam	* 5 milligrams per cubic meter (mg/m³)
Carbon Dioxide (CO_2)	** 5,000 ppm
Particulates Not Otherwise Regulated (Total)	** 15 mg/m³
Particulates Not Otherwise Regulated (Respirable))	** 5 mg/m³

**No OSHA value applicable. Value established by American Conference of Governmental Industrial Hygienists (ACGIH).*

***No LEED value. Value established by Occupational Safety and Health Administration (OSHA) Permissible Exposure Limit (PEL) 8-Hour Time Weighted Average (TWA)*

The following outlines the testing procedures and methodology to obtain the IAQ values. No field blanks are required or were submitted for any of the below analytical methods.

Formaldehyde

The formaldehyde testing was conducted according to the NIOSH Method 2016. A DNPH-treated silica gel sorbent tube was used for the sampling media. The sorbent tube was attached to a personal sampling pump which is set to run at a flow rate of ~0.1 liters per minute for four (4) hours. Samples were analyzed at EMSL Analytical Laboratory.

Particulates (PM10)

The particulate test was conducted according with the EPA Method IP-10A (SKC- Modified). A 37mm preweighed 2.0 µm polytetrafluoroethylene **(**PTFE) filter was used for the sampling media. One filter was attached to a separate high-volume sampling pumps which was set to run at a flow rate of 10 liters per minute for 4 hours.

As of May 23, 2018, Boots Construction/EPA alerted S&R to discontinue particulate analysis by PM-10 and switch to particulate analysis by NIOSH Methods 0500 and 0600.

Particulates (NIOSH 0500 and 0600 Methods)

The particulate test was conducted according to the NIOSH Methods 0500 and 0600 for Particulates Not Otherwise Regulated Total Dust (0500) and Respirable Dust (0600). A 37mm 3-stage cassette with a PVC filter was used for the sampling media. The cassette was attached to a personal sampling pump which was set to run at a flow rate of 2 liters per minute for total dust and 2.5 liters per minute for respirable dust. The total dust sample ran for 50 minutes while the respirable dust sample ran for 100 minutes. The respirable dust cassette was also fitted with an aluminum cyclone while the total dust cassette only was open on the inlet. Samples were analyzed at DCM Sciences Laboratory.

Total Volatile Organic Compounds (TVOCs)

The TVOC test was conducted according to the EPA Method TO-15 with a library search to indentify specific compound concentrations. A 6 liter SUMMA canister was used for the sampling media. The canister was attached to a flow regulator valve and set to run for 4 hours. Samples were analyzed at EMSL Analytical Laboratory.

Carbon Monoxide (CO)

The carbon monoxide test was conducted in conjunction with the TVOC tests and analyzed during the TO-15 analysis.

4-Phenylcyclohexene (4-PCH)

The 4-PCH test was conducted according to a modified OSHA CSI Method for 4-PCH Analysis. A coconut-shell charcoal sorbent tube was used for the sampling media. The sorbent tube was attached to a personal sampling pump which is set to run at a flow rate of 0.1 liters per minute for four (4) hours. Samples were analyzed at EMSL Analytical Laboratory.

Caprolactam

The caprolactam test was conducted according to OSHA Method PV2012. A OVS-7 sorbent tube was used for the sampling media. The sorbent tube was attached to a personal sampling pump which was set to run at a flow rate of 1.0 liters per minute for 100 minutes. Samples were analyzed at the Wisconsin Occupational Health Laboratory (WOHL).

Carbon Dioxide (CO_2)

The carbon dioxide test was conducted in conjunction with the TVOC tests and analyzed during the TO-15 analysis.

SAMPLING RESULTS AND LABORATORY DATA

The following details the IAQ sampling results from both the pre-testing and post-testing trials conducted in the work spaces. Summary values can be found listed below, while all of the complete summary sheets, laboratory data and chain of custodies can be found attached to this report.

Pre-Testing

Testing Schedule:

Floor #3 and #4	January 18th, 2018
Floor #4 (Personnel Requested Test)	February 16th, 2018
Lobby (1st Floor)	February 23rd, 2018
Floor #5 and #6	February 28th, 2018
Floor #2 and #7	March 1st, 2018

Post-Testing

Testing Schedule:

Floor #4	April 29th, 2018
Floor #3	May 7th, 2018
Floor #3 and #4 (PM-10 Retest)	May 14th, 2018
Floor #5	July 6th, 2018
Floor #6	August 31st, 2018
Floor #7	November 9th, 2018
Floor #2	January 29th, 2019

Pre-Testing

3rd Floor (Pre-Testing) - January 18, 2018

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
TVOC	120 µg/m³	500 µg/m³	N
CO	<9.9 ppm	9 ppm	Unknown**
4-PCH	<1.2 µg/m³	6.5 µg/m³	N
Formaldehyde	2.1 ppb	27 ppb	N
PM-10	NA*	50 µg/m³	NA*
CO2	550 ppm	5,000 ppm	N
Caprolactam	<0.015 mg/m³	5 mg/m³	N

NA*= Issue with PM-10 filter during sampling. Could not recover values. Recommend conduct post-testing for values to determine if below Max. Limit.

Unknown= Value was found to be less than 9.9 ppm but could not be exactly quantified due to the limit of detection being 9.9 ppm. Actual value may or may not be below 9 ppm. Upon laboratory explanation, limit of detection was high due to atmospheric pressure differential between location of calibration (Cinnaminson, NJ approx. 79' elevation) and sample location (Denver, CO approx. 5,280' elevation). Recommended to not use TO-15 Drager CMS for CO analysis and use real-time data logging meter or other method. T0-15 analysis and Drager CMS still appropriate for all other applicable analysis including CO2 since limit of detection is significantly different that Max. Limit.**

4th Floor (Pre-Testing) - January 18, 2018

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
TVOC	170 µg/m³	500 µg/m³	N
CO	<6.2 ppm	9 ppm	N
4-PCH	<1.2 µg/m³	6.5 µg/m³	N
Formaldehyde	3.7 ppb	27 ppb	N
PM-10	NA*	50 µg/m³	NA*
CO2	610 ppm	5,000 ppm	N
Caprolactam	<0.015 mg/m³	5 mg/m³	N

NA*= Issue with PM-10 filter during sampling. Could not recover values. Recommend conduct post-testing for values to determine if below Max. Limit.

4th Floor (staff complaint area, PM-10 only) - February 16, 2018

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
PM-10	100 µg/m³	50 µg/m³	Y

1st Floor Lobby (Pre-Testing, PM-10 only) - February 23, 2018

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
PM-10	87 µg/m³	50 µg/m³	Y

5th Floor (Pre-Testing) - February 28, 2018

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
TVOC	200 µg/m³	500 µg/m³	N
CO	<6.1 ppm	9 ppm	N
4-PCH	<1.1 µg/m³	6.5 µg/m³	N
Formaldehyde	4.2 ppb	27 ppb	N
PM-10	30 µg/m³	50 µg/m³	N
CO2	620 ppm	5,000 ppm	N
Caprolactam	<0.014 mg/m³	5 mg/m³	N

6th Floor (Pre-Testing) - February 28, 2018

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
TVOC	180 µg/m³	500 µg/m³	N
CO	<7.0 ppm	9 ppm	N
4-PCH	<1.1 µg/m³	6.5 µg/m³	N
Formaldehyde	4.0 ppb	27 ppb	N
PM-10	52 µg/m³	50 µg/m³	Y
CO2	580 ppm	5,000 ppm	N
Caprolactam	<0.014 mg/m³	5 mg/m³	N

2nd Floor (Pre-Testing) - March 1, 2018

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
TVOC	210 µg/m³	500 µg/m³	N
CO	<6.3 ppm	9 ppm	N
4-PCH	<1.1 µg/m³	6.5 µg/m³	N
Formaldehyde	3.0 ppb	27 ppb	N
PM-10	160 µg/m³	50 µg/m³	Y
CO2	590 ppm	5,000 ppm	N
Caprolactam	<0.015 mg/m³	5 mg/m³	N

7th Floor (Pre-Testing) - March 1, 2018

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
TVOC	160 µg/m³	500 µg/m³	N
CO	<6.1 ppm	9 ppm	N
4-PCH	<1.1 µg/m³	6.5 µg/m³	N
Formaldehyde	3.4 ppb	27 ppb	N
PM-10	480 µg/m³	50 µg/m³	Y
CO2	630 ppm	5,000 ppm	N
Caprolactam	<0.014 mg/m³	5 mg/m³	N

Post-Testing

4th Floor (Post-Testing) - April 30, 2018

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
TVOC	190 µg/m³	500 µg/m³	N
CO	<6.2 ppm	9 ppm	N
4-PCH	<1.3 µg/m³	6.5 µg/m³	N
Formaldehyde	1.7 ppb	27 ppb	N
PM-10	210 µg/m³	50 µg/m³	Y
CO2	550 ppm	5,000 ppm	N
Caprolactam	<0.015 mg/m³	5 mg/m³	N

3rd Floor (Post-Testing) - May 7, 2018

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
TVOC	370 µg/m³	500 µg/m³	N
CO	<6.1 ppm	9 ppm	N
4-PCH	<1.3 µg/m³	6.5 µg/m³	N
Formaldehyde	13 ppb	27 ppb	N
PM-10	730 µg/m³	50 µg/m³	Y
CO2	550 ppm	5,000 ppm	N
Caprolactam	<0.015 mg/m³	5 mg/m³	N

3rd Floor (retest, PM-10 only) - May 14, 2018

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
PM-10	900 µg/m³	50 µg/m³	Y

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
PM-10	170 µg/m³	50 µg/m³	Y

{As of May 23, 2018, Boots Construction told S&R to discontinue particulate analysis by PM-10 and instead switch to particulate analysis by NIOSH Methods 0500 and 0600.}

5th Floor (Post-Testing) - July 5, 2018

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
TVOC	180 µg/m³	500 µg/m³	N
CO	<6.0 ppm	9 ppm	N
4-PCH	<1.3 µg/m³	6.5 µg/m³	N
Formaldehyde	8.7 ppb	27 ppb	N
Particulates- Respirable	<0.001 mg/m³	5 mg/m³	N
Particulates- Total	<0.001 mg/m³	15 mg/m³	N
CO2	390 ppm	5,000 ppm	N
Caprolactam	<0.015 mg/m³	5 mg/m³	N

6th Floor (Post-Testing) - August 31, 2018

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
TVOC	150 µg/m³	500 µg/m³	N
CO	<6.5 ppm	9 ppm	N
4-PCH	<1.3 µg/m³	6.5 µg/m³	N
Formaldehyde	5.1 ppb	27 ppb	N
Particulates- Respirable	0.005 mg/m³	5 mg/m³	N
Particulates- Total	<0.001 mg/m³	15 mg/m³	N
CO2	630 ppm	5,000 ppm	N
Caprolactam	<0.015 mg/m³	5 mg/m³	N

7th Floor (Post-Testing) - November 9, 2018

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
TVOC	230 µg/m³	500 µg/m³	N
CO	<6.6 ppm	9 ppm	N
4-PCH	<1.3 µg/m³	6.5 µg/m³	N
Formaldehyde	3.5 ppb	27 ppb	N
Particulates- Respirable	0.105 mg/m³	5 mg/m³	N
Particulates- Total	0.167 mg/m³	15 mg/m³	N
CO2	530 ppm	5,000 ppm	N
Caprolactam	<0.015 mg/m³	5 mg/m³	N

2nd Floor (Post-Testing) - January 29, 2019

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
TVOC	100 µg/m³	500 µg/m³	N
CO	<6.5 ppm	9 ppm	N
4-PCH	<1.3 µg/m³	6.5 µg/m³	N
Formaldehyde	4 ppb	27 ppb	N
Particulates- Respirable	0.071 mg/m³	5 mg/m³	N
Particulates- Total	<0.001 mg/m³	15 mg/m³	N
CO2	390 ppm	5,000 ppm	N
Caprolactam	<0.015 mg/m³	5 mg/m³	N

CONCLUSION

Based on the laboratory analysis data, conversations with Boots/EPA and visual inspections, S&R has determined that all of the clearance testing conducted has passed all applicable levels. S&R concludes that the IAQ portion of the renovation was a success and has been completed.

LIABILITY LIMITATIONS

S&R reserves the right to amend or alter this protocol as conditions change and materials not initially visible are revealed. S&R assumes no liability greater than the sum of the invoice for its services.

CLOSING COMMENTS

S&R appreciates the opportunity to assist with your indoor air quality needs and looks forward to working with you on future projects. If you have any questions regarding this report of findings, please do not hesitate to call us at (303) 297-1645.

CONFIDENTIALITY

This communication including all contents and attachments are confidential and may be subject to privilege.

Sincerely,

S&R ENVIRONMENTAL CONSULTING, INC.
Alex Green
Operations Manager

Digitally signed by Alex Green
DN: cn=Alex Green, o=S&R Environmental Consulting, ou, email=alex@srenvironmentalconsulting.com, c=US
Date: 2019.02.08 09:19:16 -07'00'

Appendices:

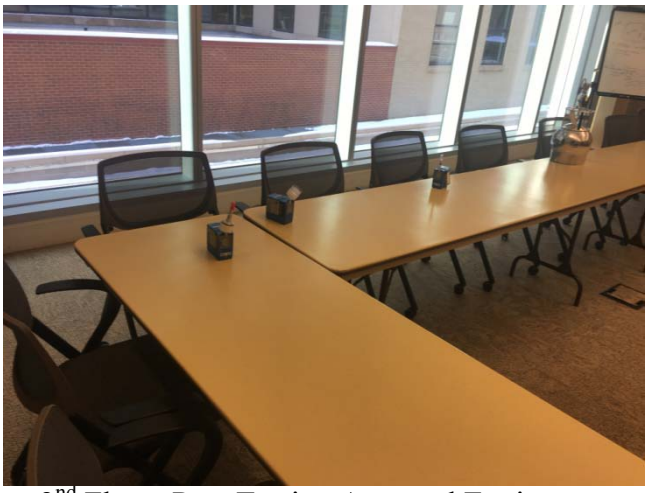
Appendix A: Site Photographs
Appendix B: EPA Air Testing Summary Sheet
Appendix C: Laboratory Analysis Results and Chain of Custodies

Appendix A:

Site Photographs

2nd Floor- Pre Testing Area and Equipment

7th Floor- Pre Testing Area and Equipment



2nd Floor- Post Testing Area and Equipment

Appendix B:

EPA Air Testing Summary Sheet

S & R Environmental Consulting, Inc.
5801 Logan Street Suite 200
Denver, CO 80216
Phone: 303-297-1645 Fax: 303-297-1646

REVISED:2/1/19

S&R Environmental Consulting/ Boots Construction

Indoor Air Quality (IAQ) Testing Summary Sheet

EPA Denver Renovation Project
1595 Wynkoop St.
Denver, CO 80202

3rd Floor (Pre-Testing)- January 18, 2018

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
TVOC	120 µg/m³	500 µg/m³	N
CO	<9.9 ppm	9 ppm	Unknown**
4-PCH	<1.2 µg/m³	6.5 µg/m³	N
Formaldehyde	2.1 ppb	27 ppb	N
PM-10	NA*	50 µg/m³	NA*
CO_2	550 ppm	5,000 ppm	N
Caprolactam	<0.015 mg/m³	5 mg/m³	N

4th Floor (Pre-Testing)- January 18, 2018

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
TVOC	170 µg/m³	500 µg/m³	N
CO	<6.2 ppm	9 ppm	N
4-PCH	<1.2 µg/m³	6.5 µg/m³	N
Formaldehyde	3.7 ppb	27 ppb	N
PM-10	NA*	50 µg/m³	NA*
CO_2	610 ppm	5,000 ppm	N
Caprolactam	<0.015 mg/m³	5 mg/m³	N

4th Floor (staff complaint area, PM-10 only)- February 16, 2018

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
PM-10	100 µg/m³	50 µg/m³	Y

1st Floor Lobby (Pre-Testing, PM-10 only)- February 23, 2018

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
PM-10	87 µg/m³	50 µg/m³	Y

5th Floor (Pre-Testing)- February 28, 2018

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
TVOC	200 µg/m³	500 µg/m³	N
CO	<6.1 ppm	9 ppm	N
4-PCH	<1.1 µg/m³	6.5 µg/m³	N
Formaldehyde	4.2 ppb	27 ppb	N
PM-10	30 µg/m³	50 µg/m³	N
CO_2	620 ppm	5,000 ppm	N
Caprolactam	<0.014 mg/m³	5 mg/m³	N

6th Floor (Pre-Testing)- February 28, 2018

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
TVOC	180 µg/m³	500 µg/m³	N
CO	<7.0 ppm	9 ppm	N
4-PCH	<1.1 µg/m³	6.5 µg/m³	N
Formaldehyde	4.0 ppb	27 ppb	N
PM-10	52 µg/m³	50 µg/m³	Y
CO_2	580 ppm	5,000 ppm	N
Caprolactam	<0.014 mg/m³	5 mg/m³	N

2nd Floor (Pre-Testing)- March 1, 2018

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
TVOC	210 µg/m³	500 µg/m³	N
CO	<6.3 ppm	9 ppm	N
4-PCH	<1.1 µg/m³	6.5 µg/m³	N
Formaldehyde	3.0 ppb	27 ppb	N
PM-10	160 µg/m³	50 µg/m³	Y
CO_2	590 ppm	5,000 ppm	N
Caprolactam	<0.015 mg/m³	5 mg/m³	N

7th Floor (Pre-Testing)- March 1, 2018

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
TVOC	160 µg/m³	500 µg/m³	N
CO	<6.1 ppm	9 ppm	N
4-PCH	<1.1 µg/m³	6.5 µg/m³	N
Formaldehyde	3.4 ppb	27 ppb	N
PM-10	480 µg/m³	50 µg/m³	Y
CO_2	630 ppm	5,000 ppm	N
Caprolactam	<0.014 mg/m³	5 mg/m³	N

NA*= Issue with PM-10 filter during sampling. Could not recover values. Recommend conduct post-testing for values to determine if below Max. Limit.

Unknown= Value was found to be less than 9.9 ppm but could not be exactly quantified due to the limit of detection being 9.9 ppm. Actual value may or may not be below 9 ppm. Upon laboratory explanation, limit of detection was high due to atmospheric pressure differential between location of calibration (Cinnaminson, NJ approx. 79' elevation) and sample location (Denver, CO approx. 5,280' elevation). Recommended to not use TO-15 Drager CMS for CO analysis and use real-time data logging meter or other method. T0-15 analysis and Drager CMS still appropriate for all other applicable analysis including CO_2 since limit of detection is significantly different that Max. Limit.**

4th Floor (Post-Testing)- April 30, 2018

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
TVOC	190 µg/m³	500 µg/m³	N
CO	<6.2 ppm	9 ppm	N
4-PCH	<1.3 µg/m³	6.5 µg/m³	N
Formaldehyde	1.7 ppb	27 ppb	N
PM-10	210 µg/m³	50 µg/m³	Y
CO_2	550 ppm	5,000 ppm	N
Caprolactam	<0.015 mg/m³	5 mg/m³	N

3rd Floor (Post-Testing)- May 7, 2018

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
TVOC	370 µg/m³	500 µg/m³	N
CO	<6.1 ppm	9 ppm	N
4-PCH	<1.3 µg/m³	6.5 µg/m³	N
Formaldehyde	13 ppb	27 ppb	N
PM-10	730 µg/m³	50 µg/m³	Y
CO_2	550 ppm	5,000 ppm	N
Caprolactam	<0.015 mg/m³	5 mg/m³	N

3rd Floor (retest, PM-10 only)- May 14, 2018

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
PM-10	900 µg/m³	50 µg/m³	Y

4th Floor (retest, PM-10 only)- May 14, 2018

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
PM-10	170 µg/m³	50 µg/m³	Y

As of May 23, 2018, Boots Construction told S&R to discontinue particulate analysis by PM-10 and instead switch to particulate analysis by NIOSH Methods 0500 and 0600.

5th Floor (Post-Testing)- July 5, 2018

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
TVOC	180 µg/m³	500 µg/m³	N
CO	<6.0 ppm	9 ppm	N
4-PCH	<1.3 µg/m³	6.5 µg/m³	N
Formaldehyde	8.7 ppb	27 ppb	N
Particulates- Respirable	<0.001 mg/m³	5 mg/m³	N
Particulates- Total	<0.001 mg/m³	15 mg/m³	N
CO_2	390 ppm	5,000 ppm	N
Caprolactam	<0.015 mg/m³	5 mg/m³	N

6th Floor (Post-Testing)- August 31, 2018

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
TVOC	150 µg/m³	500 µg/m³	N
CO	<6.5 ppm	9 ppm	N
4-PCH	<1.3 µg/m³	6.5 µg/m³	N
Formaldehyde	5.1 ppb	27 ppb	N
Particulates- Respirable	0.005 mg/m³	5 mg/m³	N
Particulates- Total	<0.001 mg/m³	15 mg/m³	N
CO_2	630 ppm	5,000 ppm	N
Caprolactam	<0.015 mg/m³	5 mg/m³	N

7th Floor (Post-Testing)- November 9, 2018

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
TVOC	230 µg/m³	500 µg/m³	N
CO	<6.6 ppm	9 ppm	N
4-PCH	<1.3 µg/m³	6.5 µg/m³	N
Formaldehyde	3.5 ppb	27 ppb	N
Particulates- Respirable	0.105 mg/m³	5 mg/m³	N
Particulates- Total	0.167 mg/m³	15 mg/m³	N
CO_2	530 ppm	5,000 ppm	N
Caprolactam	<0.015 mg/m³	5 mg/m³	N

2nd Floor (Post-Testing)- January 29, 2019

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
TVOC	100 µg/m³	500 µg/m³	N
CO	<6.5 ppm	9 ppm	N
4-PCH	<1.3 µg/m³	6.5 µg/m³	N
Formaldehyde	4 ppb	27 ppb	N
Particulates- Respirable	0.071 mg/m³	5 mg/m³	N
Particulates- Total	<0.001 mg/m³	15 mg/m³	N
CO_2	390 ppm	5,000 ppm	N
Caprolactam	<0.015 mg/m³	5 mg/m³	N

Appendix C:

Laboratory Analysis Results and Chain of Custodies

EMSL Analytical, Inc. 200 Route 130 North, Cinnaminson, NJ 08077

Order ID: 281800347

Attn:	Alex Green S&R Environmental Consulting, Inc. 5801 Logan Street, #200 Denver, CO 80216	Customer ID: Customer PO: Date Received:	SREC85 1/23/2018
Phone: Project: Report Date:	(303) 297-1645 **EPA P-1&2: 1595 Wynkoop St.** 1/31/2018	EMSL Order: EMSL Project ID: Date Analyzed:	281800347 1/30/2018

Test Report – 4-Phenylcyclohexene Analysis by GC/FID via Modified OSHA CSI Method

Sample ID	Identification	Sample Volume (L)	Sample Weight (µg)	Sample Conc. (µg/m^3)	Reporting Limit (µg/m^3)
281800347-0001	1P-PCH-1 / Phase One	24.5	<0.030	<1.2	1.2
281800347-0002	1P-PCH-1 / Phase Two	24.5	<0.030	<1.2	1.2
Desorption Blank	-	0	<0.030	ND	NA

Notes:
1. Samples were received in acceptable condition unless otherwise noted.
2. These results relate only to the samples tested.
3. Sample results are not blank corrected unless otherwise noted.
4. Discernable field blank(s) submitted with samples if reported above.

TC/AS/VK/VMD
Analyst

Scott VanEtten, CIH- Lab Manager
Or other approved signatory

EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077
Phone/Fax: (800) 220-3675 /
http://www.EMSL.com / IndustrialHygienelab@emsl.com

EMSL Order ID:	281800348
Customer ID:	SREC85
Customer PO:	
Project ID:	

Attn: Alex Green
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: (303) 297-1645
Fax: (303) 297-1646
Collected:
Received: 1/23/2018
Analyzed: 1/26/2018

Proj: EPA P-1&2: 1595 Wynkoop St.

Test Report:Formaldehyde Analysis by HPLC of Solid Sorbent Tubes via NIOSH 2016, Issue 2, 3/15/03 modified

Sample ID	Identification	Volume	Sample Weight	Sample Concentration		Reporting Limit
1P-For-1 281800348-0001	Phase One	25.5 L	0.067 µg	0.0026 mg/m³	0.0021 ppm	0.0020 mg/m³
2P-For-1 281800348-0002	Phase Two	24 L	0.11 µg	0.0046 mg/m³	0.0037 ppm	0.0021 mg/m³

N/A = Not Applicable

Analyst(s)
Alicia Shafer

Scott Van Etten, CIH, Laboratory Manager

Any questions please contact Scott VanEtten.

Initial report from: 02/02/2018 12:10:37

1. Samples were received in acceptable condition unless otherwise noted.
2. These results relate only to the samples tested.
3. Sample results are blank corrected. Reporting Limits for samples without volumes, such as Field Blanks, are 0.050 ug.
4. A discernable Field Blank was submitted if listed above as a discrete sample.

Samples analyzed by EMSL Analytical - Industrial Hygiene Cinnaminson, NJ AIHA-LAP, LLC--IHLAP Accred. Lab 100194

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Industrial Hygiene Chain of Custody

EMSL Order Number (Lab Use Only): 2818DD348

EMSL ANALYTICAL, INC.
200 ROUTE 130 NORTH
CINNAMINSON, NJ 08077
PHONE: (800) 220-3675
FAX: (856) 858-3502

Report To Contact Name: Alex Green			Bill To Company: SAME		Client ID #:
Company Name: SqR Environmental Consulting			Attention To:		
Street: 5801 Logan St. #200			Street:		
City: Denver	State/Province: Co	Zip/Postal Code: 80216	City:	State/Province:	Zip/Postal Code:
Phone: 303-297-1645 Fax:			Phone:	Fax:	
Project Name: EPA P-1&2: 1595 Wynkoop St.			Email Results To: alex@sqrenvironmentalconsulting.com		U.S. State where Samples Collected: Co
# Samples in Shipment:	Date of Shipment: 1/22/18		Purchase Order:	Sampled By (Signature):	

Turnaround Time (TAT) – Please Check: If No Selection Made, Standard 2 Week TAT Will Apply

☒ 2 Week ☐ 1 Week ☐ 4 Day ☐ 3 Day ☐ 2 Day ☐ 1 Day ☐ Other (Call Lab)

Media Type: Various

Manufacturer/Part #: Lot #:

Client Sample ID	Location/Description	Analyte / Method	Media	Flow (lpm)	Sample Time On	Sample Time Off	Volume / Area	Sample Type	Sample Date	Comments
1P-PM10	Phase One	EPA IP-10A	37mm PTFE	~~1.0~~			2,444L	☒ Area ☐ Personal		Filter 011518SR-01
2P-PM10	Phase Two	EPA IP-10A	37mm PTFE	~~1.0~~			2,474L	☒ Area ☐ Personal		011518SR-02
1P-PCH-1	Phase One	OSHA-CSI	Sorbent Tubes				24.5L	☒ Area ☐ Personal		
1P-PCH-1	Phase Two	OSHA-CSI	Sorbent Tube				24.75L	☒ Area ☐ Personal		
1P-FOR-1	Phase One	NIOSH Method 2016	DNPH Sorbent Tubes				25.5L	☐ Area ☐ Personal		
2P-FOR-1	Phase Two	NIOSH Method 2016	DNPH Sorbent Tubes				24L	☐ Area ☐ Personal		
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		

Note: Most NIOSH and OSHA methods require field blanks. It is the IH field sampler's responsibility to submit the proper number of field blanks and duplicates.

Released By	Date	Received By	Date
	1-22-18	JP.	1/23/18 10:00

Comments: – SPLIT! –

RECEIVED EMSL CINNAMINSON, N.J. 2018 JAN 23 P 12:24

OrderID: 281800348

EMSL Analytical
200 Route 130 North, Cinnaminson, NJ 08077
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http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491800062**
EMSL Sample #: **491800062-1**
Customer ID: **SREC85**
Customer PO: **SREC8596249191**

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**
Date Collected: **1/18/2018**
Date Received: **1/23/2018**

Project: **1595 Wynkoop St. Pl. 2**

Sample ID: 1P-PM10

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	01/26/2018	TP	J3116.D	E15527	497.5 cc	1

NIOSH and OSHA Exposure Limit Comparisons

Target Compounds	Tox. Basis	CAS#	MW	Result ppbv	Q	Result ug/m3	NIOSH REL ug/m3	>	OSHA PEL ug/m3	>
Propylene	NC	115-07-1	42.08	ND		ND	N.E.		N.E.	
Freon 12(Dichlorodifluoromethane)	NC	75-71-8	120.90	ND		ND	4900000		4900000	
Freon 114(1,2-Dichlorotetrafluoroethan	--	76-14-2	170.90	ND		ND	7000000		7000000	
Chloromethane	NC	74-87-3	50.49	ND		ND	LFC		210000	
n-Butane	--	106-97-8	58.12	2.5		5.9	1900000		1900000	
Vinyl chloride	C	75-01-4	62.50	ND		ND	LFC		2600	
1,3-Butadiene	C	106-99-0	54.09	ND		ND	LFC		2200	
Bromomethane	NC	74-83-9	94.94	ND		ND	LFC		78000	
Chloroethane	NC	75-00-3	64.52	ND		ND	LFC		2600000	
Ethanol	--	64-17-5	46.07	38		72	1900000		1900000	
Bromoethene(Vinyl bromide)	C	593-60-2	106.90	ND		ND	LFC		N.E.	
Freon 11(Trichlorofluoromethane)	--	75-69-4	137.40	ND		ND	5600000		5600000	
Isopropyl alcohol(2-Propanol)	NC	67-63-0	60.10	5.6		14	980000		980000	
Freon 113(1,1,2-Trichlorotrifluoroethan	NC	76-13-1	187.40	ND		ND	7700000		7700000	
Acetone	NC	67-64-1	58.08	4.0		10	590000		2400000	
1,1-Dichloroethene	NC	75-35-4	96.94	ND		ND	790000		790000	
Acetonitrile	NC	75-05-8	41.00	6.9		12	34000		67000	
Tertiary butyl alcohol(TBA)	--	75-65-0	74.12	ND		ND	300000		300000	
Bromoethane(Ethyl bromide)	--	74-96-4	108.00	ND		ND	880000		880000	
3-Chloropropene(Allyl chloride)	C	107-05-1	76.53	ND		ND	3100		3100	
Carbon disulfide	NC	75-15-0	76.14	ND		ND	3100		62000	
Methylene chloride	C	75-09-2	84.94	ND		ND	LFC		87000	
Acrylonitrile	C	107-13-1	53.00	ND		ND	2200		4300	
Methyl-tert-butyl ether(MTBE)	C	1634-04-4	88.15	ND		ND	N.E.		N.E.	
trans-1,2-Dichloroethene	--	156-60-5	96.94	ND		ND	790000		790000	
n-Hexane	NC	110-54-3	86.17	ND		ND	180000		1800000	
1,1-Dichloroethane	C	75-34-3	98.96	ND		ND	400000		400000	
Vinyl acetate	NC	108-05-4	86.00	ND		ND	14000		N.E.	
2-Butanone(MEK)	NC	78-93-3	72.10	ND		ND	590000		590000	
cis-1,2-Dichloroethene	--	156-59-2	96.94	ND		ND	790000		790000	
Ethyl acetate	NC	141-78-6	88.10	0.67		2.4	1400000		1400000	
Chloroform	C	67-66-3	119.40	ND		ND	9800		240000	
Tetrahydrofuran	NC	109-99-9	72.11	ND		ND	590000		590000	
1,1,1-Trichloroethane	NC	71-55-6	133.40	ND		ND	1900000		1900000	
Cyclohexane	NC	110-82-7	84.16	ND		ND	1000000		1000000	
2,2,4-Trimethylpentane(Isooctane)	--	540-84-1	114.20	ND		ND	N.E.		N.E.	
Carbon tetrachloride	C	56-23-5	153.80	ND		ND	13000		63000	
n-Heptane	NC	142-82-5	100.20	ND		ND	350000		2000000	
1,2-Dichloroethane	C	107-06-2	98.96	ND		ND	4000		200000	
Benzene	C	71-43-2	78.11	ND		ND	320		3200	
Trichloroethene	C	79-01-6	131.40	ND		ND	130000		540000	
1,2-Dichloropropane	C	78-87-5	113.00	ND		ND	LFC		350000	
Methyl Methacrylate	NC	80-62-6	100.12	ND		ND	410000		410000	
Bromodichloromethane	C	75-27-4	163.80	ND		ND	N.E.		N.E.	

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EMSL Order #: **491800062**
EMSL Sample #: **491800062-1**
Customer ID: **SREC85**
Customer PO: **SREC8596249191**

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**
Date Collected: **1/18/2018**
Date Received: **1/23/2018**

Project: **1595 Wynkoop St. Pl. 2**
Sample ID: 1P-PM10

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	01/26/2018	TP	J3116.D	E15527	497.5 cc	1

NIOSH and OSHA Exposure Limit Comparisons

Target Compounds	Tox. Basis	CAS#	MW	Result ppbv	Q	Result ug/m3	NIOSH REL ug/m3	>	OSHA PEL ug/m3	>
1,4-Dioxane	C	123-91-1	88.12	ND		ND	3600		360000	
4-Methyl-2-pentanone(MIBK)	NC	108-10-1	100.20	ND		ND	200000		410000	
cis-1,3-Dichloropropene**	C	10061-01-5	111.00	ND		ND	4500		N.E.	
Toluene	NC	108-88-3	92.14	1.1		4.1	380000		750000	
trans-1,3-Dichloropropene**	C	10061-02-6	111.00	ND		ND	4500		N.E.	
1,1,2-Trichloroethane	C	79-00-5	133.40	ND		ND	55000		55000	
2-Hexanone(MBK)	NC	591-78-6	100.10	ND		ND	4100		410000	
Tetrachloroethene	C	127-18-4	165.80	ND		ND	LFC		680000	
Dibromochloromethane	--	124-48-1	208.30	ND		ND	N.E.		N.E.	
1,2-Dibromoethane	C	106-93-4	187.80	ND		ND	350		150000	
Chlorobenzene	NC	108-90-7	112.60	ND		ND	N.E.		350000	
Ethylbenzene	C	100-41-4	106.20	ND		ND	430000		430000	
Xylene (p,m)	NC	1330-20-7	106.20	ND		ND	430000		430000	
Xylene (Ortho)	NC	95-47-6	106.20	ND		ND	430000		430000	
Styrene	NC	100-42-5	104.10	ND		ND	210000		430000	
Isopropylbenzene (cumene)	NC	98-82-8	120.19	ND		ND	250000		250000	
Bromoform	C	75-25-2	252.80	ND		ND	5200		5200	
1,1,2,2-Tetrachloroethane	C	79-34-5	167.90	ND		ND	6900		34000	
4-Ethyltoluene	--	622-96-8	120.20	ND		ND	N.E.		N.E.	
1,3,5-Trimethylbenzene	NC	108-67-8	120.20	ND		ND	120000		120000	
2-Chlorotoluene	--	95-49-8	126.60	ND		ND	260000		N.E.	
1,2,4-Trimethylbenzene	NC	95-63-6	120.20	ND		ND	120000		120000	
1,3-Dichlorobenzene	--	541-73-1	147.00	ND		ND	N.E.		N.E.	
1,4-Dichlorobenzene	C	106-46-7	147.00	ND		ND	LFC		450000	
Benzyl chloride	C	100-44-7	126.00	ND		ND	5200		5200	
1,2-Dichlorobenzene	NC	95-50-1	147.00	ND		ND	300000		300000	
1,2,4-Trichlorobenzene	NC	120-82-1	181.50	ND		ND	37000		N.E.	
Hexachloro-1,3-butadiene	C	87-68-3	260.80	ND		ND	210		N.E.	
Naphthalene	C	91-20-3	128.17	ND		ND	52000		52000	

**The concentrations of each isomer should be added if multiple isomers are present and compared to the total screening level.

The > column is used to flag exceedences as marked

Exposure Limit Definitions
REL= Recommended Exposure Limit, PEL= Permissable Exposure Limit

Agency Definitions
NIOSH= The National Institute for Occupational Safety and Health

Reference
Occupational Safety and Health Administration (OSHA) General Industry Air Contaminants Standard (29 CFR 1910.1000)
Toxicity Class (EPA Regionional Screening Levels (RSL) Table, Nov 2017)
C= Carcinogenic
NC= Non-Carcinogenic

Compound Exposure Definitions
NE= No Limit Established
LFC= Lowest Feasible Concentration
NS= No Sscreening Value

Qualifier Definitions
ND = Non Detect
B = Compound also found in method blank.
E= Estimated concentration exceeding upper calibration range.
D= Result reported from diluted analysis.

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EMSL Order #: **491800062**
EMSL Sample #: **491800062-1**
Customer ID: **SREC85**
Customer PO: **SREC859624919**

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**
Date Collected: **1/18/2018**
Date Received: **1/23/2018**

Project: **1595 Wynkoop St. Pl. 2**
Sample ID: 1P-PM10

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	01/26/2018	TP	J3116.D	E15527	497.5 cc	1

Possible Background Sources of Contaminants

Target Compounds	CAS#	Result ppbv	Q	Result ug/m3	Use and Possible Sources
n-Butane	106-97-8	**2.5**		**5.9**	Aerosol spray products for some paints, cosmetics, automotive products, leather treatments, pesticides.[2]
Ethanol	64-17-5	**38**		**72**	Hand sanitizers, disinfecting wipes. Personal care products: nail polish, nail polish remover, colognes, perfumes, rubbing alcohol, hair spray. [2]
Isopropyl alcohol(2-Propanol)	67-63-0	**5.6**		**14**	Eye Glass Cleaners. Disinfecting wipes. Personal care products: nail polish, nail polish remover, colognes, perfumes, rubbing alcohol, hair spray.[2]
Acetone	67-64-1	**4.0**		**10**	Rubber cement, cleaning fluids, scented candles and nail polish remover.[1]
Acetonitrile	75-05-8	**6.9**		**12**	Predominantly used as a solvent in the manufacture of pharmaceuticals and in chemical laboratories for the detection of materials such as pesticide residues.[6]
Ethyl acetate	141-78-6	**0.67**		**2.4**	Personal care products: nail polish, nail polish remover, colognes, perfumes, rubbing alcohol, hair spray.[2]
Toluene	108-88-3	**1.1**		**4.1**	Toluene is produced in the process of making gasoline and other fuels from crude oil and making coke from coal. Will occur in gasoline exhaust. Toluene is used in making paints, paint thinners, fingernail polish, lacquers, adhesives, and rubber and in some printing and leather tanning processes.[4]

Qualifier Definitions
ND = Non Detect
B = Compound also found in method blank.
E= Estimated concentration exceeding upper calibration range.
D= Result reported from diluted analysis.

Sources References
(1) NJDEP "Common Household Sources of Background Indoor Air Contamination". June 26, 2012
(2) NYSDOH "Volatile Organic Compounds (VOCs) in Commonly Used Products", 2007
(3) EPA, Air & Radiation, TTN Web - Technology Transfer NetworkAir Toxics Web site, various years.
(4) Agency for Toxic Substances and Disease Registry (ATSDR). U.S. Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA. 1998.
(5) OFFICE OF POLLUTION PREVENTION AND TOXICS, U.S. ENVIRONMENTAL PROTECTION AGENCY, August 1994, EPA 749-F-94-012a
(6) U.S. Environmental Protection Agency, Office of Research and Development, Cincinnati, OH. 1985.
(7) World Health Organization,
(8) Product Safety Assessment, Revised: November 19, 2010 The Dow Chemical Company
(9) California Office of Environmental Health Hazard Assessment, PROPOSED ACTION LEVEL FOR 2-CHLOROTOLUENE
(10) Delaware Health and Social Services, Division of Public Health, Revised: 01/2010
(11) USEPA, Envirofacts Master Chemical Integrator (EMCI), Scorecard, 4/10/2009

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EMSL Order #: **491800062**
EMSL Sample #: **491800062-2**
Customer ID: **SREC85**
Customer PO: **SREC8596249191**

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**
Date Collected: **1/18/2018**
Date Received: **1/23/2018**

Project: **1595 Wynkoop St. Pl. 2**

Sample ID: 2P-PM10

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	01/26/2018	TP	J3117.D	E15528	310 cc	1

NIOSH and OSHA Exposure Limit Comparisons

Target Compounds	Tox. Basis	CAS#	MW	Result ppbv	Q	Result ug/m3	NIOSH REL ug/m3	>	OSHA PEL ug/m3	>
Propylene	NC	115-07-1	42.08	ND		ND	N.E.		N.E.	
Freon 12(Dichlorodifluoromethane)	NC	75-71-8	120.90	ND		ND	4900000		4900000	
Freon 114(1,2-Dichlorotetrafluoroethan	--	76-14-2	170.90	ND		ND	7000000		7000000	
Chloromethane	NC	74-87-3	50.49	**0.51**		**1.0**	LFC		210000	
n-Butane	--	106-97-8	58.12	**2.2**		**5.3**	1900000		1900000	
Vinyl chloride	C	75-01-4	62.50	ND		ND	LFC		2600	
1,3-Butadiene	C	106-99-0	54.09	ND		ND	LFC		2200	
Bromomethane	NC	74-83-9	94.94	ND		ND	LFC		78000	
Chloroethane	NC	75-00-3	64.52	ND		ND	LFC		2600000	
Ethanol	--	64-17-5	46.07	**54**	**E**	**100**	1900000		1900000	
Bromoethene(Vinyl bromide)	C	593-60-2	106.90	ND		ND	LFC		N.E.	
Freon 11(Trichlorofluoromethane)	--	75-69-4	137.40	ND		ND	5600000		5600000	
Isopropyl alcohol(2-Propanol)	NC	67-63-0	60.10	**6.2**		**15**	980000		980000	
Freon 113(1,1,2-Trichlorotrifluoroethan	NC	76-13-1	187.40	ND		ND	7700000		7700000	
Acetone	NC	67-64-1	58.08	**4.3**		**10**	590000		2400000	
1,1-Dichloroethene	NC	75-35-4	96.94	ND		ND	790000		790000	
Acetonitrile	NC	75-05-8	41.00	**19**		**32**	34000		67000	
Tertiary butyl alcohol(TBA)	--	75-65-0	74.12	ND		ND	300000		300000	
Bromoethane(Ethyl bromide)	--	74-96-4	108.00	ND		ND	880000		880000	
3-Chloropropene(Allyl chloride)	C	107-05-1	76.53	ND		ND	3100		3100	
Carbon disulfide	NC	75-15-0	76.14	ND		ND	3100		62000	
Methylene chloride	C	75-09-2	84.94	ND		ND	LFC		87000	
Acrylonitrile	C	107-13-1	53.00	ND		ND	2200		4300	
Methyl-tert-butyl ether(MTBE)	C	1634-04-4	88.15	ND		ND	N.E.		N.E.	
trans-1,2-Dichloroethene	--	156-60-5	96.94	ND		ND	790000		790000	
n-Hexane	NC	110-54-3	86.17	ND		ND	180000		1800000	
1,1-Dichloroethane	C	75-34-3	98.96	ND		ND	400000		400000	
Vinyl acetate	NC	108-05-4	86.00	ND		ND	14000		N.E.	
2-Butanone(MEK)	NC	78-93-3	72.10	ND		ND	590000		590000	
cis-1,2-Dichloroethene	--	156-59-2	96.94	ND		ND	790000		790000	
Ethyl acetate	NC	141-78-6	88.10	**1.0**		**3.7**	1400000		1400000	
Chloroform	C	67-66-3	119.40	ND		ND	9800		240000	
Tetrahydrofuran	NC	109-99-9	72.11	ND		ND	590000		590000	
1,1,1-Trichloroethane	NC	71-55-6	133.40	ND		ND	1900000		1900000	
Cyclohexane	NC	110-82-7	84.16	ND		ND	1000000		1000000	
2,2,4-Trimethylpentane(Isooctane)	--	540-84-1	114.20	ND		ND	N.E.		N.E.	
Carbon tetrachloride	C	56-23-5	153.80	ND		ND	13000		63000	
n-Heptane	NC	142-82-5	100.20	ND		ND	350000		2000000	
1,2-Dichloroethane	C	107-06-2	98.96	ND		ND	4000		200000	
Benzene	C	71-43-2	78.11	ND		ND	320		3200	
Trichloroethene	C	79-01-6	131.40	ND		ND	130000		540000	
1,2-Dichloropropane	C	78-87-5	113.00	ND		ND	LFC		350000	
Methyl Methacrylate	NC	80-62-6	100.12	ND		ND	410000		410000	
Bromodichloromethane	C	75-27-4	163.80	ND		ND	N.E.		N.E.	

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EMSL Order #: **491800062**
EMSL Sample #: **491800062-2**
Customer ID: **SREC85**
Customer PO: **SREC8596249191**

Attn: **Alex Green**
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Phone: **303-297-1645**
Fax: **303-297-1646**
Date Collected: **1/18/2018**
Date Received: **1/23/2018**

Project: **1595 Wynkoop St. Pl. 2**

Sample ID: 2P-PM10

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	01/26/2018	TP	J3117.D	E15528	310 cc	1

NIOSH and OSHA Exposure Limit Comparisons

Target Compounds	Tox. Basis	CAS#	MW	Result ppbv	Q	Result ug/m3	NIOSH REL ug/m3	>	OSHA PEL ug/m3	>
1,4-Dioxane	C	123-91-1	88.12	ND		ND	3600		360000	
4-Methyl-2-pentanone(MIBK)	NC	108-10-1	100.20	ND		ND	200000		410000	
cis-1,3-Dichloropropene**	C	10061-01-5	111.00	ND		ND	4500		N.E.	
Toluene	NC	108-88-3	92.14	1.4		5.2	380000		750000	
trans-1,3-Dichloropropene**	C	10061-02-6	111.00	ND		ND	4500		N.E.	
1,1,2-Trichloroethane	C	79-00-5	133.40	ND		ND	55000		55000	
2-Hexanone(MBK)	NC	591-78-6	100.10	ND		ND	4100		410000	
Tetrachloroethene	C	127-18-4	165.80	ND		ND	LFC		680000	
Dibromochloromethane	--	124-48-1	208.30	ND		ND	N.E.		N.E.	
1,2-Dibromoethane	C	106-93-4	187.80	ND		ND	350		150000	
Chlorobenzene	NC	108-90-7	112.60	ND		ND	N.E.		350000	
Ethylbenzene	C	100-41-4	106.20	ND		ND	430000		430000	
Xylene (p,m)	NC	1330-20-7	106.20	ND		ND	430000		430000	
Xylene (Ortho)	NC	95-47-6	106.20	ND		ND	430000		430000	
Styrene	NC	100-42-5	104.10	ND		ND	210000		430000	
Isopropylbenzene (cumene)	NC	98-82-8	120.19	ND		ND	250000		250000	
Bromoform	C	75-25-2	252.80	ND		ND	5200		5200	
1,1,2,2-Tetrachloroethane	C	79-34-5	167.90	ND		ND	6900		34000	
4-Ethyltoluene	--	622-96-8	120.20	ND		ND	N.E.		N.E.	
1,3,5-Trimethylbenzene	NC	108-67-8	120.20	ND		ND	120000		120000	
2-Chlorotoluene	--	95-49-8	126.60	ND		ND	260000		N.E.	
1,2,4-Trimethylbenzene	NC	95-63-6	120.20	ND		ND	120000		120000	
1,3-Dichlorobenzene	--	541-73-1	147.00	ND		ND	N.E.		N.E.	
1,4-Dichlorobenzene	C	106-46-7	147.00	ND		ND	LFC		450000	
Benzyl chloride	C	100-44-7	126.00	ND		ND	5200		5200	
1,2-Dichlorobenzene	NC	95-50-1	147.00	ND		ND	300000		300000	
1,2,4-Trichlorobenzene	NC	120-82-1	181.50	ND		ND	37000		N.E.	
Hexachloro-1,3-butadiene	C	87-68-3	260.80	ND		ND	210		N.E.	
Naphthalene	C	91-20-3	128.17	ND		ND	52000		52000	

**The concentrations of each isomer should be added if multiple isomers are present and compared to the total screening level.

The > column is used to flag exceedences as marked

Exposure Limit Definitions
REL= Recommended Exposure Limit, PEL= Permissable Exposure Limit

Agency Definitions
NIOSH= The National Institute for Occupational Safety and Health

Reference
Occupational Safety and Health Administration (OSHA) General Industry Air Contaminants Standard (29 CFR 1910.1000)
Toxicity Class (EPA Regionional Screening Levels (RSL) Table, Nov 2017)
C= Carcinogenic
NC= Non-Carcinogenic

Compound Exposure Definitions
NE= No Limit Established
LFC= Lowest Feasible Concentration
NS= No Sscreening Value

Qualifier Definitions
ND = Non Detect
B = Compound also found in method blank.
E= Estimated concentration exceeding upper calibration range.
D= Result reported from diluted analysis.

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EMSL Order #: **491800062**
EMSL Sample #: **491800062-2**
Customer ID: **SREC85**
Customer PO: **SREC859624919**

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**
Date Collected: **1/18/2018**
Date Received: **1/23/2018**

Project: **1595 Wynkoop St. Pl. 2**
Sample ID: 2P-PM10

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	01/26/2018	TP	J3117.D	E15528	310 cc	1

Possible Background Sources of Contaminants

Target Compounds	CAS#	Result ppbv	Q	Result ug/m3	Use and Possible Sources
Chloromethane	74-87-3	**0.51**		**1.0**	Most (99%) of the chloromethane in the environment comes from natural sources. Because chloromethane is made in the oceans by natural processes, it is present in air all over the world. In most areas, the outside air contains less than 1 part of chloromethane in a billion parts of air (ppb). In cities, human activities, mostly combustion and manufacturing, add to the chloromethane in the air, resulting in somewhat higher levels, up to 1 ppb. Cigarette smoke, polystyrene insulation, and aerosol propellants; home burning of wood, coal, or certain plastics; and chlorinated swimming pools.[4]
n-Butane	106-97-8	**2.2**		**5.3**	Aerosol spray products for some paints, cosmetics, automotive products, leather treatments, pesticides.[2]
Ethanol	64-17-5	**54**	**E**	**100**	Hand sanitizers, disinfecting wipes. Personal care products: nail polish, nail polish remover, colognes, perfumes, rubbing alcohol, hair spray. [2]
Isopropyl alcohol(2-Propanol)	67-63-0	**6.2**		**15**	Eye Glass Cleaners. Disinfecting wipes. Personal care products: nail polish, nail polish remover, colognes, perfumes, rubbing alcohol, hair spray.[2]
Acetone	67-64-1	**4.3**		**10**	Rubber cement, cleaning fluids, scented candles and nail polish remover.[1]
Acetonitrile	75-05-8	**19**		**32**	Predominantly used as a solvent in the manufacture of pharmaceuticals and in chemical laboratories for the detection of materials such as pesticide residues.[6]
Ethyl acetate	141-78-6	**1.0**		**3.7**	Personal care products: nail polish, nail polish remover, colognes, perfumes, rubbing alcohol, hair spray.[2]
Toluene	108-88-3	**1.4**		**5.2**	Toluene is produced in the process of making gasoline and other fuels from crude oil and making coke from coal. Will occur in gasoline exhaust. Toluene is used in making paints, paint thinners, fingernail polish, lacquers, adhesives, and rubber and in some printing and leather tanning processes.[4]

Qualifier Definitions
ND = Non Detect
B = Compound also found in method blank.
E= Estimated concentration exceeding upper calibration range.
D= Result reported from diluted analysis.

Sources References
(1) NJDEP "Common Household Sources of Background Indoor Air Contamination". June 26, 2012
(2) NYSDOH "Volatile Organic Compounds (VOCs) in Commonly Used Products", 2007
(3) EPA, Air & Radiation, TTN Web - Technology Transfer NetworkAir Toxics Web site, various years.
(4) Agency for Toxic Substances and Disease Registry (ATSDR). U.S. Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA. 1998.
(5) OFFICE OF POLLUTION PREVENTION AND TOXICS, U.S. ENVIRONMENTAL PROTECTION AGENCY, August 1994, EPA 749-F-94-012a
(6) U.S. Environmental Protection Agency, Office of Research and Development, Cincinnati, OH. 1985.
(7) World Health Organization,
(8) Product Safety Assessment, Revised: November 19, 2010 The Dow Chemical Company
(9) California Office of Environmental Health Hazard Assessment, PROPOSED ACTION LEVEL FOR 2-CHLOROTOLUENE
(10) Delaware Health and Social Services, Division of Public Health, Revised: 01/2010
(11) USEPA, Envirofacts Master Chemical Integrator (EMCI), Scorecard, 4/10/2009

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EMSL Order #: **491800062**
Customer ID: **SREC85**
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Project: **1595 Wynkoop St. Pl. 2**

Date Collected: **1/18/2018**
Date Received: **1/23/2018**

Laboratory Report- Sample Summary

EMSL Sample ID.	Client Sample ID.	Start Sampling Date	Start Sampling Time
491800062-0001	1P-TO15	1/18/2018	11:30 AM
491800062-0002	2P-TO15	1/18/2018	11:35 AM

If "Preliminary Report" is displayed in the signature box; this indicates that there are samples that have not yet been analyzed, that are in a preliminary state, or that analysis is in progress but not completed at the time of report issue.

Report Date:	Report Revision	Revision Comments
2/6/2018	R0	Initial Report
2/7/2018	R1	Revised sample IDs

Marjorie Howley, Laboratory Manager
or other approved signatory

Test results meet all NELAP requirements unless otherwise specified.

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EMSL Order #: **491800062**
EMSL Sample #: **491800062-1**
Customer ID: **SREC85**
Customer PO: **SREC859624919**

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Date Collected: **1/18/2018**
Date Received: **1/23/2018**

Project: **1595 Wynkoop St. Pl. 2**

Sample ID: 1P-TO15

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	01/26/2018	TP	J3116.D	E15527	497.5 cc	1

Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
Propylene	115-07-1	42.08	ND	1.0		ND	1.7	
Freon 12(Dichlorodifluoromethane)	75-71-8	120.9	ND	0.50		ND	2.5	
Freon 114(1,2-Dichlorotetrafluoroethan	76-14-2	170.9	ND	0.50		ND	3.5	
Chloromethane	74-87-3	50.49	ND	0.50		ND	1.0	
n-Butane	106-97-8	58.12	**2.5**	0.50		**5.9**	1.2	
Vinyl chloride	75-01-4	62.50	ND	0.50		ND	1.3	
1,3-Butadiene	106-99-0	54.09	ND	0.50		ND	1.1	
Bromomethane	74-83-9	94.94	ND	0.50		ND	1.9	
Chloroethane	75-00-3	64.52	ND	0.50		ND	1.3	
Ethanol	64-17-5	46.07	**38**	0.50		**72**	0.94	
Bromoethene(Vinyl bromide)	593-60-2	106.9	ND	0.50		ND	2.2	
Freon 11(Trichlorofluoromethane)	75-69-4	137.4	ND	0.50		ND	2.8	
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	**5.6**	0.50		**14**	1.2	
Freon 113(1,1,2-Trichlorotrifluoroethan	76-13-1	187.4	ND	0.50		ND	3.8	
Acetone	67-64-1	58.08	**4.0**	0.50		**10**	1.2	
1,1-Dichloroethene	75-35-4	96.94	ND	0.50		ND	2.0	
Acetonitrile	75-05-8	41.00	**6.9**	0.50		**12**	0.84	
Tertiary butyl alcohol(TBA)	75-65-0	74.12	ND	0.50		ND	1.5	
Bromoethane(Ethyl bromide)	74-96-4	108.0	ND	0.50		ND	2.2	
3-Chloropropene(Allyl chloride)	107-05-1	76.53	ND	0.50		ND	1.6	
Carbon disulfide	75-15-0	76.14	ND	0.50		ND	1.6	
Methylene chloride	75-09-2	84.94	ND	0.50		ND	1.7	
Acrylonitrile	107-13-1	53.00	ND	0.50		ND	1.1	
Methyl-tert-butyl ether(MTBE)	1634-04-4	88.15	ND	0.50		ND	1.8	
trans-1,2-Dichloroethene	156-60-5	96.94	ND	0.50		ND	2.0	
n-Hexane	110-54-3	86.17	ND	0.50		ND	1.8	
1,1-Dichloroethane	75-34-3	98.96	ND	0.50		ND	2.0	
Vinyl acetate	108-05-4	86.00	ND	0.50		ND	1.8	
2-Butanone(MEK)	78-93-3	72.10	ND	0.50		ND	1.5	
cis-1,2-Dichloroethene	156-59-2	96.94	ND	0.50		ND	2.0	
Ethyl acetate	141-78-6	88.10	**0.67**	0.50		**2.4**	1.8	
Chloroform	67-66-3	119.4	ND	0.50		ND	2.4	
Tetrahydrofuran	109-99-9	72.11	ND	0.50		ND	1.5	
1,1,1-Trichloroethane	71-55-6	133.4	ND	0.50		ND	2.7	
Cyclohexane	110-82-7	84.16	ND	0.50		ND	1.7	
2,2,4-Trimethylpentane(Isooctane)	540-84-1	114.2	ND	0.50		ND	2.3	
Carbon tetrachloride	56-23-5	153.8	ND	0.50		ND	3.1	
n-Heptane	142-82-5	100.2	ND	0.50		ND	2.0	
1,2-Dichloroethane	107-06-2	98.96	ND	0.50		ND	2.0	
Benzene	71-43-2	78.11	ND	0.50		ND	1.6	
Trichloroethene	79-01-6	131.4	ND	0.50		ND	2.7	
1,2-Dichloropropane	78-87-5	113.0	ND	0.50		ND	2.3	
Methyl Methacrylate	80-62-6	100.12	ND	0.50		ND	2.0	
Bromodichloromethane	75-27-4	163.8	ND	0.50		ND	3.3	
1,4-Dioxane	123-91-1	88.12	ND	0.50		ND	1.8	
4-Methyl-2-pentanone(MIBK)	108-10-1	100.2	ND	0.50		ND	2.0	

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EMSL Order #: **491800062**
EMSL Sample #: **491800062-1**
Customer ID: **SREC85**
Customer PO: **SREC859624919**

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Date Collected: **1/18/2018**
Date Received: **1/23/2018**

Project: **1595 Wynkoop St. Pl. 2**

Sample ID: 1P-TO15

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	01/26/2018	TP	J3116.D	E15527	497.5 cc	1

Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
cis-1,3-Dichloropropene	10061-01-5	111.0	ND	0.50		ND	2.3	
Toluene	108-88-3	92.14	1.1	0.50		4.1	1.9	
trans-1,3-Dichloropropene	10061-02-6	111.0	ND	0.50		ND	2.3	
1,1,2-Trichloroethane	79-00-5	133.4	ND	0.50		ND	2.7	
2-Hexanone(MBK)	591-78-6	100.1	ND	0.50		ND	2.0	
Tetrachloroethene	127-18-4	165.8	ND	0.50		ND	3.4	
Dibromochloromethane	124-48-1	208.3	ND	0.50		ND	4.3	
1,2-Dibromoethane	106-93-4	187.8	ND	0.50		ND	3.8	
Chlorobenzene	108-90-7	112.6	ND	0.50		ND	2.3	
Ethylbenzene	100-41-4	106.2	ND	0.50		ND	2.2	
Xylene (p,m)	1330-20-7	106.2	ND	1.0		ND	4.3	
Xylene (Ortho)	95-47-6	106.2	ND	0.50		ND	2.2	
Styrene	100-42-5	104.1	ND	0.50		ND	2.1	
Isopropylbenzene (cumene)	98-82-8	120.19	ND	0.50		ND	2.5	
Bromoform	75-25-2	252.8	ND	0.50		ND	5.2	
1,1,2,2-Tetrachloroethane	79-34-5	167.9	ND	0.50		ND	3.4	
4-Ethyltoluene	622-96-8	120.2	ND	0.50		ND	2.5	
1,3,5-Trimethylbenzene	108-67-8	120.2	ND	0.50		ND	2.5	
2-Chlorotoluene	95-49-8	126.6	ND	0.50		ND	2.6	
1,2,4-Trimethylbenzene	95-63-6	120.2	ND	0.50		ND	2.5	
1,3-Dichlorobenzene	541-73-1	147.0	ND	0.50		ND	3.0	
1,4-Dichlorobenzene	106-46-7	147.0	ND	0.50		ND	3.0	
Benzyl chloride	100-44-7	126.0	ND	0.50		ND	2.6	
1,2-Dichlorobenzene	95-50-1	147.0	ND	0.50		ND	3.0	
1,2,4-Trichlorobenzene	120-82-1	181.5	ND	0.50		ND	3.7	
Hexachloro-1,3-butadiene	87-68-3	260.8	ND	0.50		ND	5.3	
Naphthalene	91-20-3	128.17	ND	0.50		ND	2.6	
Total Target Compound Concentrations:			**59**	**ppbv**		**120**	**ug/m3**	

Surrogate	Result	Spike	Recovery
4-Bromofluorobenzene	10	10	100%

Qualifier Definitions

ND = Non Detect

B = Compound also found in method blank.

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air…" Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).

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EMSL Order #: **491800062**
EMSL Sample #: **491800062-2**
Customer ID: **SREC85**
Customer PO: **SREC859624919**

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Date Collected: **1/18/2018**
Date Received: **1/23/2018**

Project: **1595 Wynkoop St. Pl. 2**

Sample ID: 2P-TO15

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	01/26/2018	TP	J3117.D	E15528	310 cc	1

Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
Propylene	115-07-1	42.08	ND	1.0		ND	1.7	
Freon 12(Dichlorodifluoromethane)	75-71-8	120.9	ND	0.50		ND	2.5	
Freon 114(1,2-Dichlorotetrafluoroethan	76-14-2	170.9	ND	0.50		ND	3.5	
Chloromethane	74-87-3	50.49	**0.51**	0.50		**1.0**	1.0	
n-Butane	106-97-8	58.12	**2.2**	0.50		**5.3**	1.2	
Vinyl chloride	75-01-4	62.50	ND	0.50		ND	1.3	
1,3-Butadiene	106-99-0	54.09	ND	0.50		ND	1.1	
Bromomethane	74-83-9	94.94	ND	0.50		ND	1.9	
Chloroethane	75-00-3	64.52	ND	0.50		ND	1.3	
Ethanol	64-17-5	46.07	**54**	0.50	E	**100**	0.94	
Bromoethene(Vinyl bromide)	593-60-2	106.9	ND	0.50		ND	2.2	
Freon 11(Trichlorofluoromethane)	75-69-4	137.4	ND	0.50		ND	2.8	
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	**6.2**	0.50		**15**	1.2	
Freon 113(1,1,2-Trichlorotrifluoroethan	76-13-1	187.4	ND	0.50		ND	3.8	
Acetone	67-64-1	58.08	**4.3**	0.50		**10**	1.2	
1,1-Dichloroethene	75-35-4	96.94	ND	0.50		ND	2.0	
Acetonitrile	75-05-8	41.00	**19**	0.50		**32**	0.84	
Tertiary butyl alcohol(TBA)	75-65-0	74.12	ND	0.50		ND	1.5	
Bromoethane(Ethyl bromide)	74-96-4	108.0	ND	0.50		ND	2.2	
3-Chloropropene(Allyl chloride)	107-05-1	76.53	ND	0.50		ND	1.6	
Carbon disulfide	75-15-0	76.14	ND	0.50		ND	1.6	
Methylene chloride	75-09-2	84.94	ND	0.50		ND	1.7	
Acrylonitrile	107-13-1	53.00	ND	0.50		ND	1.1	
Methyl-tert-butyl ether(MTBE)	1634-04-4	88.15	ND	0.50		ND	1.8	
trans-1,2-Dichloroethene	156-60-5	96.94	ND	0.50		ND	2.0	
n-Hexane	110-54-3	86.17	ND	0.50		ND	1.8	
1,1-Dichloroethane	75-34-3	98.96	ND	0.50		ND	2.0	
Vinyl acetate	108-05-4	86.00	ND	0.50		ND	1.8	
2-Butanone(MEK)	78-93-3	72.10	ND	0.50		ND	1.5	
cis-1,2-Dichloroethene	156-59-2	96.94	ND	0.50		ND	2.0	
Ethyl acetate	141-78-6	88.10	**1.0**	0.50		**3.7**	1.8	
Chloroform	67-66-3	119.4	ND	0.50		ND	2.4	
Tetrahydrofuran	109-99-9	72.11	ND	0.50		ND	1.5	
1,1,1-Trichloroethane	71-55-6	133.4	ND	0.50		ND	2.7	
Cyclohexane	110-82-7	84.16	ND	0.50		ND	1.7	
2,2,4-Trimethylpentane(Isooctane)	540-84-1	114.2	ND	0.50		ND	2.3	
Carbon tetrachloride	56-23-5	153.8	ND	0.50		ND	3.1	
n-Heptane	142-82-5	100.2	ND	0.50		ND	2.0	
1,2-Dichloroethane	107-06-2	98.96	ND	0.50		ND	2.0	
Benzene	71-43-2	78.11	ND	0.50		ND	1.6	
Trichloroethene	79-01-6	131.4	ND	0.50		ND	2.7	
1,2-Dichloropropane	78-87-5	113.0	ND	0.50		ND	2.3	
Methyl Methacrylate	80-62-6	100.12	ND	0.50		ND	2.0	
Bromodichloromethane	75-27-4	163.8	ND	0.50		ND	3.3	
1,4-Dioxane	123-91-1	88.12	ND	0.50		ND	1.8	
4-Methyl-2-pentanone(MIBK)	108-10-1	100.2	ND	0.50		ND	2.0	

EMSL Analytical
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856)858-4800 / (856)858-4571
http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491800062**
EMSL Sample #: **491800062-2**
Customer ID: **SREC85**
Customer PO: **SREC859624919**

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**
Date Collected: **1/18/2018**
Date Received: **1/23/2018**

Project: **1595 Wynkoop St. Pl. 2**

Sample ID: 2P-TO15

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	01/26/2018	TP	J3117.D	E15528	310 cc	1

Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
cis-1,3-Dichloropropene	10061-01-5	111.0	ND	0.50		ND	2.3	
Toluene	108-88-3	92.14	**1.4**	0.50		**5.2**	1.9	
trans-1,3-Dichloropropene	10061-02-6	111.0	ND	0.50		ND	2.3	
1,1,2-Trichloroethane	79-00-5	133.4	ND	0.50		ND	2.7	
2-Hexanone(MBK)	591-78-6	100.1	ND	0.50		ND	2.0	
Tetrachloroethene	127-18-4	165.8	ND	0.50		ND	3.4	
Dibromochloromethane	124-48-1	208.3	ND	0.50		ND	4.3	
1,2-Dibromoethane	106-93-4	187.8	ND	0.50		ND	3.8	
Chlorobenzene	108-90-7	112.6	ND	0.50		ND	2.3	
Ethylbenzene	100-41-4	106.2	ND	0.50		ND	2.2	
Xylene (p,m)	1330-20-7	106.2	ND	1.0		ND	4.3	
Xylene (Ortho)	95-47-6	106.2	ND	0.50		ND	2.2	
Styrene	100-42-5	104.1	ND	0.50		ND	2.1	
Isopropylbenzene (cumene)	98-82-8	120.19	ND	0.50		ND	2.5	
Bromoform	75-25-2	252.8	ND	0.50		ND	5.2	
1,1,2,2-Tetrachloroethane	79-34-5	167.9	ND	0.50		ND	3.4	
4-Ethyltoluene	622-96-8	120.2	ND	0.50		ND	2.5	
1,3,5-Trimethylbenzene	108-67-8	120.2	ND	0.50		ND	2.5	
2-Chlorotoluene	95-49-8	126.6	ND	0.50		ND	2.6	
1,2,4-Trimethylbenzene	95-63-6	120.2	ND	0.50		ND	2.5	
1,3-Dichlorobenzene	541-73-1	147.0	ND	0.50		ND	3.0	
1,4-Dichlorobenzene	106-46-7	147.0	ND	0.50		ND	3.0	
Benzyl chloride	100-44-7	126.0	ND	0.50		ND	2.6	
1,2-Dichlorobenzene	95-50-1	147.0	ND	0.50		ND	3.0	
1,2,4-Trichlorobenzene	120-82-1	181.5	ND	0.50		ND	3.7	
Hexachloro-1,3-butadiene	87-68-3	260.8	ND	0.50		ND	5.3	
Naphthalene	91-20-3	128.17	ND	0.50		ND	2.6	
Total Target Compound Concentrations:			**89**	**ppbv**		**170**	**ug/m3**	

Surrogate	Result	Spike	Recovery
4-Bromofluorobenzene	10	10	100%

Qualifier Definitions

ND = Non Detect

B = Compound also found in method blank.

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air…" Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).

USEPA TO-15
External Chain of Custody/ Field Test Data Sheet

EMSL Analytical, Inc.
200 Route 130 North
Cinnaminson, NJ 08077
Ph. (800) 220-3675
Fax (856) 786-0327

EMSL ANALYTICAL, INC.

EMSL Order Number (Lab Use Only): 491800062

Report To Contact Name: Alex Green	Bill To Company:	Sampled By (Sign):
Company Name: S&R Environmental Consulting	Attention To:	Sampled By (Name): Alex Green
Address 1: 5801 Logan St. #200	Address 1:	Total # of Samples: 2
Address 2: Denver, Co 80216	Address 2:	Date Shipped: 1/22/18
Phone No.: 303-297-1645 Fax:	Phone No.: Fax:	Sample Collection Zip Code: 80202
Email Results To: alex@srenvironmental consulting.com	Project Name: 1595 Wynkoop St. Pkg 2	Purchase Order: CC-SREC85-86249191

Turnaround Time (In Business Days): ☒ 10 Day Standard ☐ 5 Day ☐ 4 Day ☐ 3 Day ☐ 2 Day ☐ 1 Day ☐ Other

Reporting Format: ☒ Results Only (Standard Lab Report) ☐ Full Deliverables (Surcharge may apply) ☐ Other

EMSL Sample Identifier	Client Field Sample Identification	Field Use - All Information Required! Sampling Start Information Start Date	Start Time (24 hr clock)	Start Barometric Pres. ("Hg)	Start Interior Temp. (F)	Sampling Stop Information Stop Date	Stop Time (24 hr clock)	Stop Barometric Pres. ("Hg)	Stop Interior Temp. (F)	Lab Use Only Canister Information Canister ID	Size (L)	Can Cert Batch ID	Outgoing Pressure ("Hg)	Incoming Pressure ("Hg)	Flow Controller Reg. ID	Flow Controller Cal Flow (ml/min)	Analysis USEPA TO-15	NJDEP LLTO-15	LIBRARY SEARCH	Other (Specify)	Matrix Indoor/ Ambient Air	Soil Gas	Landfill/ Vent
	1P-PM10	1-18-18	11:30	25	70	1-18-18	15:30	0	76	E15527	6	C3549	-29.8	0	7879	212	X				X		
	2P-PM10	1-18-18	11:35	25	70	1-18-18	15:35	0	70	L15528	↓	↓	↓	0	7880	↓	X				X		

Comments:

Lab Canister Certification
Analyst Signature (TO-15):

Relinquished by:	Date/ Time	Received by:	Date/ Time	Seal #/Intact	Reason for Exchange (circle appropriate)
Carley Peters	1/16/18 1345	Alex Green	1/17/18 14:00	079	(Shipping) Courier Receiving Sampling Other:
Alex Green	1/22/18 14:00	CR	1/23/18 @ 10:00	080	(Shipping) Courier Receiving Sampling Other:
amendekalm	1/23/18 @ 10:00 AM		1/23/18 1239		Shipping Courier Receiving Sampling (Other:)
					Shipping Courier Receiving Sampling Other:
					Shipping Courier Receiving Sampling Other:

FX#: 795413823665

4918 00062

RECEIVED
EMSL
CINNAMINSON, N.J.

TO-15 Sample Information

Please fill out this worksheet in addition to the Chain of Custody form. This information helps us analyze your samples, achieve requested TAT and provide you with helpful interpretation information.

2018 JAN 23 A 10: 49

Company:	SER Environmental Consulting
Contact Person:	
Name:	Alex Green
E-mail:	alex@serenvironmentalconsulting.com
Additional E-mails:	
Telephone #:	303-297-1645

Library Search requested: [ ] YES [X] NO

A library search (*aka Tentatively Identified Compounds*) will identify up to 20 of the largest, non-target peaks that are not part of the standard TO-15 list of 74 compounds. If you are performing an Indoor Air Quality or odor investigation, the library search is recommended to provide you with all available information for your sample.

Sample Type:

[X] **Indoor Air Quality (Home/Office)** [ ] **Soil Gas/Sub Slab**
[ ] **IAQ (Industrial)**
[ ] **Other:**
Sample Description:_____

PLEASE NOTE: The result forms that we provide will not indicate whether your results have exceeded any Exposure Limit criteria established by any regulatory agency. If you would like that information, please check off below which regulatory comparison forms you would like to receive.

[X] **OSHA PELs/NIOSH RELs** *combined form*
[ ] **EPA RSLs** - *5/2016 Blended for THQ=1.0 and THQ=0.1*
[ ] **NJ DEP** *1/2013* - **Circle one:** Indoor Air Soil Gas
[ ] **NC DENR** *4/2014* **-Circle one:** Residential Non-residentia
[ ] **PA DEP** - *11/2016* Indoor Air
[ ] **PA DEP-** 11/2016: Sub Slab Soil Gas OR Near Source Soil Gas
[ ] **CA HHSL** *11/2004* **- Circle on** Indoor Air Soil Gas

[X] **Potential Sources of Compounds found in your IAQ sample**
[ ] **TVOC (Library Search Required for this format)**
[ ] **Ohio** *4/2013* **-Circle one:** Residential Commercial
[ ] **Indiana Dept Env Mgmt Screeening Levels** *3/2016*
[ ] **Vermont DEP IROCP** *4/2012* **(soil gas only)**
[ ] **California OEHHA** *2/2012*
[ ] **Other, These are the compounds I want reported:**

Additional analyses that can be performed from your canister. Please note: there is an additional charge for any of the tests below.

US EPA TO-3 via GC/FID **(choose one below):**
[ ] **C_1-C_6 hydrocarbons**
[ ] **Methane only**

ASTM-D5504 *via GC/SCD* **(choose one below):** *
[ ] **Sulfur Scan (H_2S, COS, MeSH, EtSH, DMS)**
[ ] **H_2S only**

Note**: ***Hold time for sulfur gases is 1 day from collection. Please schedule your sample collection so that samples are received in the lab prior to noon on Friday. Analysis performed out of hold time will have a notation in the report.

We can provide the following CMS tests from your canisters. Please note that these tests are to be used for IAQ/Screening purposes ONLY. EMSL recommends alternate field sampling techniques for these parameters (with the exception of water vapor); please contact your sales rep for the proper media. Please note: there is an additional charge for any of the tests

Dragger CMS Analyzer:
[X] **CO** [X] **CO_2** [ ] **NH_3** [ ] **O2** [ ] **Water Vapor**

Sample Retention Policy: All canisters are guaranteed to be retained for one day after results are reported. Please review your results promptly to ensure that your project scope is fully addressed. Cans may be retained for a longer period of time but arrangements to hold your cans must be made through your customer account representative quickly. Thank you.

EMSL Analytical, Inc.
200 Route 130 North, Cinnaminson, NJ 08077

EMSL Order ID: 491800062

Attn: Alex Green
S&R Environmental Consulting
508 Logan St.#200
Denver, Co 80216

Customer ID: SREC85

Date Received: 1/23/2018

Project: 1595 Wynkoop St, Pl. 2

Report Date: 2/7/2018

Data Analyzed: 1/25/2018

Fixed Gas Analysis by Using The Draeger CMS (Chip Measurement System)

Sample ID	Identification	Compound	Detection Limit (ppmV)	Sample Result (ppmV)
491800062-1	1P-TO15	Carbon dioxide	400	550
491800062-1	1P-TO15	Carbon monoxide	9.9	<9.9
491800062-2	2P-TO15	Carbon dioxide	250	610
491800062-2	2P-TO15	Carbon monoxide	6.2	<6.2

T. Peters
Analyst

Marge Howley
Lab Manager

USEPA TO-15
External Chain of Custody/ Field Test Data Sheet

EMSL Analytical, Inc.
200 Route 130 North
Cinnaminson, NJ 08077
Ph. (800) 220-3675
Fax (856) 786-0327

EMSL Order Number (Lab Use Only): 491800062

OrderID: 491800062

Report To Contact Name: Alex Green	Bill To Company:	Sampled By (Sign):
Company Name: S&R Environmental Consulting	Attention To:	Sampled By (Name): Alex Green
Address 1: 5801 Logan St. #200	Address 1:	Total # of Samples: 2
Address 2: Denver, Co 80216	Address 2:	Date Shipped: 1/22/18
Phone No.: 303-297-1695 Fax:	Phone No.: Fax:	Sample Collection Zip Code: 80202
Email Results To: alex@srenvironmental.com, [illegible]	Project Name: 1595 Wynkoop St. Pkg 2	Purchase Order: CC-SREC85-86249191

Turnaround Time (In Business Days): ☒ 10 Day Standard ☐ 5 Day ☐ 4 Day ☐ 3 Day ☐ 2 Day ☐ 1 Day ☐ Other

Reporting Format: ☒ Results Only (Standard Lab Report) ☐ Full Deliverables (Surcharge may apply) ☐ Other

EMSL Sample Identifier	Client Field Sample Identification	Field Use - All Information Required! Sampling Start Information Barometric Pres. ("Hg): Start Date	Time (24 hr clock)	Canister Pressure ("Hg)	Interior Temp. (F)	Sampling Stop Information Barometric Pres. ("Hg): Stop Date	Time (24 hr clock)	Canister Pressure ("Hg)	Interior Temp. (F)	Lab Use Only Canister Information: Canister ID	Size (L)	Can Cert Batch ID	Outgoing Pressure ("Hg)	Incoming Pressure ("Hg)	Flow Controller: Reg. ID	Cal Flow (ml/min)	Analysis: USEPA TO-15	NJDEP LLTO-15	LIBRARY SEARCH	Other (Specify)	Matrix: Indoor/ Ambient Air	Soil Gas	Landfill/ Vent
1	1P-PM10	1-18-18	11:30	25	76	1-18-18	15:30	0	76	E15527	6	C3549	-29.8	0	7819	21.2	X				X		
2	2P-PM10	1-18-18	11:35	25	70	1-18-18	15:35	0	70	L15528	↓	↓	↓	0	7880	↓	X				X		

Comments:

Lab Canister Certification Analyst Signature (TO-15):

Relinquished by:	Date/ Time	Received by:	Date/ Time	Seal #/Intact
Carley Peters	1/16/18 1345	Alex Green	1/17/18 14:00	079
Alex Green	1/22/18 14:00	AR UPS FEX	1/23/18@ 10:00	OK
amended return	1/23/18@ 10:00A			

Reason for Exchange (circle appropriate): (Shipping) Courier Receiving Sampling Other:

Report Revised on 2/6/18 by S&R to Real 1P-TO15 & 2P-TO15

Controlled Document - COC-S9 TO-15 Cinnaminson RZ.1 2017.07.26

FX#: 795413823665

Page 1 Of 2

OrderID: 491800062

-491800062

RECEIVED
EMSL
CINNAMINSON, N.J.

TO-15 Sample Information

Please fill out this worksheet in addition to the Chain of Custody form. This information helps us select the best analysis for your samples, achieve requested TAT and provide you with helpful interpretation information.

Company:	S&R Environmental Consulting
Contact Person:	
Name:	Alex Green
E-mail:	alex@srenvironmentalconsulting.com
Additional E-mails:	
Telephone #:	303-297-1645

Library Search requested: [ ] YES [X] NO

A library search (*aka Tentatively Identified Compounds*) will identify up to 20 of the largest, non-target peaks that are not part of the standard TO-15 list of 74 compounds. If you are performing an Indoor Air Quality or odor investigation, the library search is recommended to provide you with all available information for your sample.

Sample Type:

[X] Indoor Air Quality (Home/Office) [ ] Soil Gas/Sub Slab
[ ] IAQ (Industrial)
[ ] Other:

Sample Description: _____

PLEASE NOTE: The result forms that we provide will not indicate whether your results have exceeded any Exposure Limit criteria established by any regulatory agency. If you would like that information, please check off below which regulatory comparison forms you would like to receive.

[X] OSHA PELs/NIOSH RELs *combined form* [X] Potential Sources of Compounds found in your IAQ sample
[ ] EPA RSLs - *5/2016 Blended for THQ=1.0 and THQ=0.1* [ ] TVOC (Library Search Required for this format)
[ ] NJ DEP *1/2013* - Circle one: Indoor Air Soil Gas [ ] Ohio *4/2013* -Circle one: Residential Commercial
[ ] NC DENR *4/2014* -Circle one: Residential Non-residential [ ] Indiana Dept Env Mgmt Screening Levels *3/2016*
[ ] PA DEP - *11/2016* Indoor Air [ ] Vermont DEP IROCP *4/2012* (soil gas only)
[ ] PA DEP- *11/2016*: Sub Slab Soil Gas OR Near Source Soil Gas [ ] California OEHHA *2/2012*
[ ] CA HHSL *11/2004* - Circle on Indoor Air Soil Gas [ ] Other, These are the compounds I want reported:

Additional analyses that can be performed from your canister. Please note: there is an additional charge for any of the tests below.

US EPA TO-3 *via GC/FID* **(choose one below):**
[ ] C_1-C_6 hydrocarbons
[ ] Methane only

ASTM-D5504 *via GC/SCD* **(choose one below):** *
[ ] Sulfur Scan (H_2S, COS, MeSH, EtSH, DMS)
[ ] H_2S only

***Note:** *Hold time for sulfur gases is 1 day from collection. Please schedule your sample collection so that samples are received in the lab prior to noon on Friday. Analysis performed out of hold time will have a notation in the report.*

We can provide the following CMS tests from your canisters. Please note that these tests are to be used for IAQ/Screening purposes ONLY. EMSL recommends alternate field sampling techniques for these parameters (with the exception of water vapor); please contact your sales rep for the proper media. Please note: there is an additional charge for any of the tests

Dragger CMS Analyzer:
[X] CO [X] CO_2 [ ] NH_3 [ ] $O2$ [ ] Water Vapor

Sample Retention Policy: All canisters are guaranteed to be retained for one day after results are reported. Please review your results promptly to ensure that your project scope is fully addressed. Cans may be retained for a longer period of time but arrangements to hold your cans must be made through your customer account representative quickly. Thank you.

Wisconsin Occupational Health Laboratory
WISCONSIN STATE LABORATORY OF HYGIENE
UNIVERSITY OF WISCONSIN-MADISON

2601 Agriculture Drive
Madison, WI 53718
Phone: (800) 446-0403
Fax: (608) 224-6213
Web: wohl-lab.org

ALEX GREEN

S & R ENVIRONMENTAL CONSULTING

STE 200

5801 LOGAN ST

DENVER, CO 80216

Lab Workorder ID	363825
Visit/Project ID	1595 WYNKOOP ST EPA
PO	18013
Received	January 23, 2018
Reported	February 5, 2018
Report ID	4962440
Previous Report IDs	

Dear ALEX GREEN:

Enclosed are the analytical results for sample(s) received by the laboratory on January 23, 2018. All samples received were acceptable, results were not blank corrected, and all quality control met laboratory standards unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact the lab.

Sincerely,

Steve Strebel, Laboratory Director

Analyst - JOHN GLOWACKI

Wisconsin Occupational Health Laboratory
WISCONSIN STATE LABORATORY OF HYGIENE
UNIVERSITY OF WISCONSIN-MADISON

2601 Agriculture Drive
Madison, WI 53718
Phone: (800) 446-0403
Fax: (608) 224-6213
Web: www.wohl-lab.org

Final Report

Lab ID: **363825001**	Sample ID: **1P-CP-1**	Media: **OVS-7 TUBE**
Sampling Date: **1/18/2018**	Matrix: **Air**	Sampled Time:

						RESULT			
Analyte	**Method**	**Analysis Date**	**Air Volume**	**Reporting Limit**	**Front**	**Rear**	**Total**	**Air Concentration**	**TWA**
Caprolactam (Dust and Vapor)	OSHA PV2012	2/2/2018	98.0 L	1.5 ug	<1.5 ug	<1.5 ug	<1.5 ug	<0.015 mg/m3	

Lab ID: **363825002**	Sample ID: **2P-CP-1**	Media: **OVS-7 TUBE**
Sampling Date: **1/18/2018**	Matrix: **Air**	Sampled Time:

						RESULT			
Analyte	**Method**	**Analysis Date**	**Air Volume**	**Reporting Limit**	**Front**	**Rear**	**Total**	**Air Concentration**	**TWA**
Caprolactam (Dust and Vapor)	OSHA PV2012	2/2/2018	98.0 L	1.5 ug	<1.5 ug	<1.5 ug	<1.5 ug	<0.015 mg/m3	

Abbreviations:

mg = milligrams	ppm or ppmv = parts per million	/m3 = per cubic meter
ug = micrograms	ppb or ppbv = parts per billion	/ft2 = per square foot
ng = nanograms	EU = Endotoxin Units	fibers/cc = fibers per cubic centimeter

< Less Than. The analyte, if present, is at a level too low to be accurately quantitated by the method used

End of Analytical Report

The results in this report apply only to the samples, specifically listed above, and tested at the Wisconsin Occupational Health Laboratory

EMSL Analytical - Industrial Hygiene
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (800) 220-3675 /
http://www.EMSL.com IndustrialHygienelab@emsl.com

EMSL Order:	281800872
CustomerID:	SREC85
CustomerPO:	018013
ProjectID:	

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone:	(303) 297-1645
Fax:	(303) 297-1646
Received:	02/26/18 8:00 AM
Analysis Date:	2/27/2018
Collected:	1/15/2018

Project: **EPA Lobby**

Test Report: PM10 Analysis of Particulate Matter Performed by EPA Reference Method 40 CFR, Chapter I, Part 50, App. J

Sample	*Location*	*Volume (L)*	*Initial Weight (mg)*	*Final Weight (mg)*	*Sample Weight (mg)*	*Concentration (µg/m³)*	*Reporting Limit (µg/m³)*	*Notes*
011518SR-08	EPA Lobby	2409	56.409	56.619	0.21	87	0.83	
281800872-0001								

Notes: Discernable field blank not submitted with samples.
Results are not field blank corrected.

Analyst(s)

Vincent Kurp (1)

Scott Van Etten, CIH, Laboratory Manager
or other approved signatory

Initial report from 02/27/2018 11:52:45

EMSL Analytical - Industrial Hygiene
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (800) 220-3675 /
http://www.EMSL.com IndustrialHygienelab@emsl.com

EMSL Order:	281800790
CustomerID:	SREC85
CustomerPO:	
ProjectID:	

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone:	(303) 297-1645
Fax:	(303) 297-1646
Received:	02/20/18 10:40 AM
Analysis Date:	2/21/2018
Collected:	2/16/2018

Project: **EPA PM10-21618**

Test Report: PM10 Analysis of Particulate Matter Performed by EPA Reference Method 40 CFR, Chapter I, Part 50, App. J

Sample	*Location*	*Volume (L)*	*Initial Weight (mg)*	*Final Weight (mg)*	*Sample Weight (mg)*	*Concentration (µg/m³)*	*Reporting Limit (µg/m³)*	*Notes*
011518SR-10	4th Floor SW Corner	2392	52.978	53.220	0.24	100	0.84	
281800790-0001								

Notes: Discernable field blank not submitted with samples.
Results are not field blank corrected.

Analyst(s)

Vincent Kurp (1)

Scott Van Etten, CIH, Laboratory Manager
or other approved signatory

Initial report from 02/21/2018 14:14:39

EMSL Analytical - Industrial Hygiene
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (800) 220-3675 /
http://www.EMSL.com IndustrialHygienelab@emsl.com

EMSL Order:	281801007
CustomerID:	SREC85
CustomerPO:	018013
ProjectID:	

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone:	(303) 297-1645
Fax:	(303) 297-1646
Received:	03/05/18 9:05 AM
Analysis Date:	3/9/2018
Collected:	3/1/2018

Project: **EPA 2/28 & 3/1 Tests**

Test Report: PM10 Analysis of Particulate Matter Performed by EPA Reference Method 40 CFR, Chapter I, Part 50, App. J

Sample	*Location*	*Volume (L)*	*Initial Weight (mg)*	*Final Weight (mg)*	*Sample Weight (mg)*	*Concentration (µg/m³)*	*Reporting Limit (µg/m³)*	*Notes*
PM10-05	5th Floor	2436	55.274	55.348	0.074	30	0.82	
281801007-0001								
PM10-06	6th Floor	2516	51.404	51.538	0.13	52	0.79	
281801007-0002								
PM10-07	7th Floor	2494	58.230	59.435	1.2	480	0.80	
281801007-0003								
PM10-02	2nd Floor	2579	55.315	55.725	0.41	160	0.78	
281801007-0004								

Notes: Discernable field blank not submitted with samples.
Results are not field blank corrected.

Analyst(s)

Vincent Kurp (4)

Scott Van Etten, CIH, Laboratory Manager
or other approved signatory

Initial report from 03/09/2018 11:50:25

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Industrial Hygiene Chain of Custody

EMSL Order Number (Lab Use Only): -281801007

EMSL Analytical, Inc.
200 Route 130 North
Cinnaminson, NJ 08077
PHONE: 1-800-220-3675
FAX: (856) 786-5974

Report To Contact Name: Alexander Green			**Bill To Company:** S&R Environmental Co		**Client ID #:**
Company Name: S&R Environmental Co			**Attention To:** Alexander Green		
Street: 5801 Logan St.			**Street:** 5801 Logan St.		
City: Denver	**State/Province:** CO	**Zip/Postal Code:** 80212	**City:** Denver	**State/Province:** CO	**Zip/Postal Code:** 80212
Phone : 3035481175	**Fax :** 3035481175		**Phone:** 3035481175	**Fax:** 3032971645	
Project Name: EPA 2/28 & 3/1 Tests			**Email Results To:** greenalexd@gmail.com		**U.S. State where Samples Collected:** CO
# Samples In Shipment:	**Date of Shipment:** 3/2/18		**Purchase Order:** 018013		**Sampled By (Signature):**

Turnaround Time (TAT) – Please Check: If No Selection Made, Standard 2 Week TAT Will Apply

☒ 2 Week ☐ 1 Week ☐ 4 Day ☐ 3 Day ☐ 2 Day ☐ 1 Day ☐ Other (Call Lab)

Media Type:

Manufacturer/Part #: **Lot #:**

Client Sample ID	Location/Description	Analyte / Method	Media	Flow (lpm)	Sample Time On	Sample Time Off	Volume / Area	Sample Type	Sample Date	Comments
PCH-05	5th Floor	OSHA-CS1	Sorbent Tube				27.6	☒ Area ☐ Personal	2/28/18	
PCH-06	6th Floor	"	"				26.4	☒ Area ☐ Personal	"	
PCH-07	7th Floor	"	"				26.8	☒ Area ☐ Personal	3/1/18	
PCH-02	2nd Floor	"	"				27.0	☒ Area ☐ Personal	"	
PM10-05	5th Floor	EPAIP-10A	37 mm PTFE				2,436	☒ Area ☐ Personal	2/28/18	011518SR-04
PM10-06	6th Floor	"	"				2,516	☒ Area ☐ Personal	"	-09
PM10-07	7th Floor	"	"				2,494	☒ Area ☐ Personal	3/1/18	-06
PM10-02	2nd Floor	"	"				2,579	☒ Area ☐ Personal	"	-05

Note: Most NIOSH and OSHA methods require field blanks. It is the IH field sampler's responsibility to submit the proper number of field blanks and duplicates.

Released By	Date	Received By	Date
	3/2/18		3/5/18 9:05

Comments:
Call with Questions Alex Green 303-548-1175

795435930414 (12) KR

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Page 1 Of

OrderID: 281801007

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Industrial Hygiene
Chain of Custody

EMSL Order Number (Lab Use Only):

-281801007

EMSL ANALYTICAL, INC.
200 ROUTE 130 NORTH
CINNAMINSON, NJ 08077
PHONE: (800) 220-3675
FAX: (856) 858-3502

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Client Sample ID	Location/Description	Analyte / Method	Media	Flow (lpm)	Sample Time On	Sample Time Off	Volume / Area	Sample Type	Sample Date	Comments
FOR-05	5th Floor	NIOSH2016	PVDH Tube				27.3	☒ Area ☐ Personal	2/28/18	
FOR-06	6th Floor	↓	↓				26.6	☒ Area ☐ Personal	"	
FOR-07	7th Floor						26.0	☒ Area ☐ Personal	3/1/18	
FOR-02	2nd Floor						27.5	☒ Area ☐ Personal	"	
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		
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								☐ Area ☐ Personal		
								☐ Area ☐ Personal		

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18 MAR -5 AM 10:57

Comments: ~~Call with Questions Alex Green 303-548-1175~~

EMSL Analytical, Inc. 200 Route 130 North, Cinnaminson, NJ 08077

Order ID: 281801031

Attn:	Alexander Green S&R Environmental 421 Oakwood Dr. Troy, IL 62294	Customer ID: Customer PO: Date Received:	SREV26 018013 03/05/2018
Phone: Project: Report Date:	(303) 297-1645 **EPA 2/28 & 3/1 Tests** 03/14/2018	EMSL Order: EMSL Project ID: Date Analyzed:	281801031 03/12/2018

Test Report – 4-Phenylcyclohexene Analysis by GC/FID via Modified OSHA CSI Method

Sample ID	Identification	Sample Volume (L)	Sample Weight (µg)	Sample Conc. (µg/m^3)	Reporting Limit (µg/m^3)
281801031-0001	PCH-05 / 5th Floor	27.6	<0.030	<1.1	<1.1
281801031-0002	PCH-06 / 6th Floor	26.4	<0.030	<1.1	<1.1
281801031-0003	PCH-07 / 7th Floor	27	<0.030	<1.1	<1.1
281801031-0004	PCH-02 / 2nd Floor	27	<0.030	<1.1	<1.1
Desorption Blank	-	0	<0.030	ND	NA

Notes:
1. Samples were received in acceptable condition unless otherwise noted.
2. These results relate only to the samples tested.
3. Sample results are not blank corrected unless otherwise noted.
4. Discernable field blank(s) submitted with samples if reported above.

TC/AS/VK/VMD
Analyst

Scott VanEtten, CIH- Lab Manager
Or other approved signatory

EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077
Phone/Fax: (800) 220-3675 /
http://www.EMSL.com / IndustrialHygienelab@emsl.com

EMSL Order ID:	281801032
Customer ID:	SREC85
Customer PO:	018013
Project ID:	

Attn: Alex Green
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: (303) 297-1645
Fax: (303) 297-1646
Collected:
Received: 3/05/2018
Analyzed: 3/06/2018

Proj: EPA 2/28 & 3/1 Tests

Test Report:Formaldehyde Analysis by HPLC of Solid Sorbent Tubes via NIOSH 2016, Issue 2, 3/15/03 modified

Sample ID	Identification	Volume	Sample Weight	Sample Concentration		Reporting Limit
FOR-05 281801032-0001	5th Floor	27.3 L	0.14 µg	0.0051 mg/m³	0.0042 ppm	0.0018 mg/m³
FOR-06 281801032-0002	6th Floor	26.6 L	0.13 µg	0.0049 mg/m³	0.0040 ppm	0.0019 mg/m³
FOR-07 281801032-0003	7th Floor	26 L	0.11 µg	0.0042 mg/m³	0.0034 ppm	0.0019 mg/m³
FOR-02 281801032-0004	2nd Floor	27.5 L	0.10 µg	0.0036 mg/m³	0.0030 ppm	0.0018 mg/m³

N/A = Not Applicable

Analyst(s)
Alicia Shafer

Scott Van Etten, CIH, Laboratory Manager

Any questions please contact Scott VanEtten.

Initial report from: 03/19/2018 13:23:15

1. Samples were received in acceptable condition unless otherwise noted.
2. These results relate only to the samples tested.
3. Sample results are blank corrected. Reporting Limits for samples without volumes, such as Field Blanks, are 0.050 ug.
4. A discernable Field Blank was submitted if listed above as a discrete sample.

Samples analyzed by EMSL Analytical - Industrial Hygiene Cinnaminson, NJ AIHA-LAP, LLC--IHLAP Accred. Lab 100194

EMSL Analytical, Inc.
200 Route 130 North
Cinnaminson, NJ 08077
PHONE: 1-800-220-3675
FAX: (856) 786-5974

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Industrial Hygiene Chain of Custody

EMSL Order Number (Lab Use Only): 281801032

Report To Contact Name: Alexander Green		**Bill To Company:** S&R Environmental Co	**Client ID #:**
Company Name: S&R Environmental Co		**Attention To:** Alexander Green	
Street: 5801 Logan St.		**Street:** 5801 Logan St.	
City: Denver	**State/Province:** CO **Zip/Postal Code:** 80212	**City:** Denver	**State/Province:** CO **Zip/Postal Code:** 80212
Phone : 3035481175	**Fax :** 3035481175	**Phone:** 3035481175	**Fax:** 3032971645
Project Name: EPA 2/28 & 3/1 Tests		**Email Results To:** greenalexd@gmail.com	**U.S. State where Samples Collected:** CO
# Samples in Shipment:	**Date of Shipment:** 3/2/18	**Purchase Order:** 018013	**Sampled By (Signature):**

Turnaround Time (TAT) – Please Check: If No Selection Made, Standard 2 Week TAT Will Apply

☒ 2 Week ☐ 1 Week ☐ 4 Day ☐ 3 Day ☐ 2 Day ☐ 1 Day ☐ Other (Call Lab)

Media Type:

Manufacturer/Part #: **Lot #:**

Client Sample ID	Location/Description	Analyte / Method	Media	Flow (lpm)	Sample Time On	Sample Time Off	Volume / Area	Sample Type	Sample Date	Comments
PCH-05	5th Floor	OSHA-CS1	Sorbent Tube				27.6	☒ Area ☐ Personal	2/28/18	
PCH-06	6th Floor	"	"				26.4	☒ Area ☐ Personal	"	
PCH-07	7th Floor	"	"				26.8	☒ Area ☐ Personal	3/1/18	
PCH-02	2nd Floor	"	"				27.0	☒ Area ☐ Personal	"	
PM10-05	5th Floor	EPAIP-10A	37 mm PTFE				2,436	☒ Area ☐ Personal	2/28/18	011518SR-04
PM10-06	6th Floor	"	"				2,516	☒ Area ☐ Personal	"	-09
PM10-07	7th Floor	"	"				2,494	☒ Area ☐ Personal	3/1/18	-06
PM10-02	2nd Floor	"	"				2,579	☒ Area ☐ Personal	"	-05

Note: Most NIOSH and OSHA methods require field blanks. It is the IH field sampler's responsibility to submit the proper number of field blanks and duplicates.

Released By	Date	Received By	Date
	3/2/18	UPS	3/5/18 9:05

Comments:
Call with Questions Alex Green 303-548-1175

794359304 14

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2

Page 1 Of

OrderID: 281801032

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Industrial Hygiene Chain of Custody

EMSL Order Number (Lab Use Only): 281801032

EMSL ANALYTICAL, INC.
200 ROUTE 130 NORTH
CINNAMINSON, NJ 08077
PHONE: (800) 220-3675
FAX: (856) 858-3502

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Client Sample ID	Location/Description	Analyte / Method	Media	Flow (lpm)	Sample Time On	Sample Time Off	Volume / Area	Sample Type	Sample Date	Comments
FOR-05	5th Floor	NIOSH2016	PNDH Tube				27.3	☒ Area ☐ Personal	2/28/18	
FOR-06	6th Floor	↓	↓				26.6	☒ Area ☐ Personal	"	
FOR-07	7th Floor						26.0	☒ Area ☐ Personal	3/1/18	
FOR-02	2nd Floor						27.5	☒ Area ☐ Personal	"	
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		
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								☐ Area ☐ Personal		
								☐ Area ☐ Personal		

Comments: Call with Questions Alex Green 303-548-1175

RECEIVED
EMSL
CINNAMINSON, NJ
18 MAR -5 AM 10:57

EMSL Analytical, Inc.
200 Route 130 North, Cinnaminson, NJ 08077

EMSL Order ID: 491800190

Attn: Alex Green
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Customer ID: SREC85

Date Received: 3/5/2018

Project: EPA 1595 Wynkoop St.

Report Date: 3/11/2018

Data Analyzed: 3/11/2018

Fixed Gas Analysis by Using The Draeger CMS (Chip Measurement System)

Sample ID	Identification	Compound	Detection Limit (ppmV)	Sample Result (ppmV)
491800190-1	0270- 2 Fl.	Carbon Monoxide	6.3	<6.3
491800190-2	0392- 5 Fl.	Carbon Monoxide	6.1	<6.1
491800190-3	0415 - 6 Fl.	Carbon Monoxide	7.0	<7.0
491800190-4	15341 - 7Fl.	Carbon Monoxide	6.1	<6.1
491800190-1	0270- 2 Fl.	Carbon Dioxide	250	590
491800190-2	0392- 5 Fl.	Carbon Dioxide	240	620
491800190-3	0415 - 6 Fl.	Carbon Dioxide	280	580
491800190-4	15341 - 7Fl.	Carbon Dioxide	240	630

RRenna
Analyst

Marge Howley
Lab Manager

EMSL Analytical
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856)858-4800 / (856)858-4571
http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491800190**
Customer ID: **SREC85**
Customer PO: **18013**

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**

Project: **EPA 1595 Wynkoop St.**

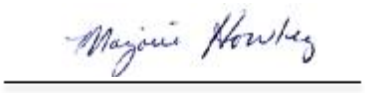
Date Collected: **3/1/2018**
Date Received: **3/5/2018**

Laboratory Report- Sample Summary

EMSL Sample ID.	Client Sample ID.	Start Sampling Date	Start Sampling Time
491800190-0001	0270-2 Fl.	3/1/2018	10:15 AM
491800190-0002	0392 - 5 Fl.	2/28/2018	10:50 AM
491800190-0003	0415 - 6 Fl.	2/28/2018	10:45 AM
491800190-0004	15341 - 7 Fl.	3/1/2018	10:10 AM

If "Preliminary Report" is displayed in the signature box; this indicates that there are samples that have not yet been analyzed, that are in a preliminary state, or that analysis is in progress but not completed at the time of report issue.

Report Date:	Report Revision	Revision Comments
3/19/2018	R0	Initial Report



Marjorie Howley, Laboratory Manager
or other approved signatory

Test results meet all NELAP requirements unless otherwise specified.
NJDEP Certification #: 03036

EMSL Analytical
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856)858-4800 / (856)858-4571
http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491800190**
EMSL Sample #: **491800190-1**
Customer ID: **SREC85**
Customer PO: **18013**

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**
Date Collected: **3/1/2018**
Date Received: **3/5/2018**

Project: **EPA 1595 Wynkoop St.**

Sample ID: 0270-2 FI.

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	03/14/2018	KW	K15169.D	E0270	312.5 cc	1

Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
Propylene	115-07-1	42.08	ND	1.0		ND	1.7	
Freon 12(Dichlorodifluoromethane)	75-71-8	120.9	ND	0.50		ND	2.5	
Freon 114(1,2-Dichlorotetrafluoroethan	76-14-2	170.9	ND	0.50		ND	3.5	
Chloromethane	74-87-3	50.49	**0.70**	0.50		**1.4**	1.0	
n-Butane	106-97-8	58.12	**5.8**	0.50		**14**	1.2	
Vinyl chloride	75-01-4	62.50	ND	0.50		ND	1.3	
1,3-Butadiene	106-99-0	54.09	ND	0.50		ND	1.1	
Bromomethane	74-83-9	94.94	ND	0.50		ND	1.9	
Chloroethane	75-00-3	64.52	ND	0.50		ND	1.3	
Ethanol	64-17-5	46.07	**47**	0.50	E	**88**	0.94	
Bromoethene(Vinyl bromide)	593-60-2	106.9	ND	0.50		ND	2.2	
Freon 11(Trichlorofluoromethane)	75-69-4	137.4	ND	0.50		ND	2.8	
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	**4.8**	0.50		**12**	1.2	
Freon 113(1,1,2-Trichlorotrifluoroethan	76-13-1	187.4	ND	0.50		ND	3.8	
Acetone	67-64-1	58.08	**7.4**	0.50		**18**	1.2	
1,1-Dichloroethene	75-35-4	96.94	ND	0.50		ND	2.0	
Acetonitrile	75-05-8	41.00	**17**	0.50		**28**	0.84	
Tertiary butyl alcohol(TBA)	75-65-0	74.12	ND	0.50		ND	1.5	
Bromoethane(Ethyl bromide)	74-96-4	108.0	ND	0.50		ND	2.2	
3-Chloropropene(Allyl chloride)	107-05-1	76.53	ND	0.50		ND	1.6	
Carbon disulfide	75-15-0	76.14	ND	0.50		ND	1.6	
Methylene chloride	75-09-2	84.94	ND	0.50		ND	1.7	
Acrylonitrile	107-13-1	53.00	ND	0.50		ND	1.1	
Methyl-tert-butyl ether(MTBE)	1634-04-4	88.15	ND	0.50		ND	1.8	
trans-1,2-Dichloroethene	156-60-5	96.94	ND	0.50		ND	2.0	
n-Hexane	110-54-3	86.17	ND	0.50		ND	1.8	
1,1-Dichloroethane	75-34-3	98.96	ND	0.50		ND	2.0	
Vinyl acetate	108-05-4	86.00	ND	0.50		ND	1.8	
2-Butanone(MEK)	78-93-3	72.10	**0.58**	0.50		**1.7**	1.5	
cis-1,2-Dichloroethene	156-59-2	96.94	ND	0.50		ND	2.0	
Ethyl acetate	141-78-6	88.10	**0.80**	0.50		**2.9**	1.8	
Chloroform	67-66-3	119.4	ND	0.50		ND	2.4	
Tetrahydrofuran	109-99-9	72.11	ND	0.50		ND	1.5	
1,1,1-Trichloroethane	71-55-6	133.4	ND	0.50		ND	2.7	
Cyclohexane	110-82-7	84.16	**2.2**	0.50		**7.5**	1.7	
2,2,4-Trimethylpentane(Isooctane)	540-84-1	114.2	ND	0.50		ND	2.3	
Carbon tetrachloride	56-23-5	153.8	ND	0.50		ND	3.1	
n-Heptane	142-82-5	100.2	ND	0.50		ND	2.0	
1,2-Dichloroethane	107-06-2	98.96	ND	0.50		ND	2.0	
Benzene	71-43-2	78.11	ND	0.50		ND	1.6	
Trichloroethene	79-01-6	131.4	ND	0.50		ND	2.7	
1,2-Dichloropropane	78-87-5	113.0	ND	0.50		ND	2.3	
Methyl Methacrylate	80-62-6	100.12	ND	0.50		ND	2.0	
Bromodichloromethane	75-27-4	163.8	ND	0.50		ND	3.3	
1,4-Dioxane	123-91-1	88.12	ND	0.50		ND	1.8	
4-Methyl-2-pentanone(MIBK)	108-10-1	100.2	ND	0.50		ND	2.0	

EMSL Analytical
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856)858-4800 / (856)858-4571
http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491800190**
EMSL Sample #: **491800190-1**
Customer ID: **SREC85**
Customer PO: **18013**

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**
Date Collected: **3/1/2018**
Date Received: **3/5/2018**

Project: **EPA 1595 Wynkoop St.**
Sample ID: 0270-2 FI.

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	03/14/2018	KW	K15169.D	E0270	312.5 cc	1

Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
cis-1,3-Dichloropropene	10061-01-5	111.0	ND	0.50		ND	2.3	
Toluene	108-88-3	92.14	**1.1**	0.50		**4.0**	1.9	
trans-1,3-Dichloropropene	10061-02-6	111.0	ND	0.50		ND	2.3	
1,1,2-Trichloroethane	79-00-5	133.4	ND	0.50		ND	2.7	
2-Hexanone(MBK)	591-78-6	100.1	ND	0.50		ND	2.0	
Tetrachloroethene	127-18-4	165.8	ND	0.50		ND	3.4	
Dibromochloromethane	124-48-1	208.3	ND	0.50		ND	4.3	
1,2-Dibromoethane	106-93-4	187.8	ND	0.50		ND	3.8	
Chlorobenzene	108-90-7	112.6	ND	0.50		ND	2.3	
Ethylbenzene	100-41-4	106.2	ND	0.50		ND	2.2	
Xylene (p,m)	1330-20-7	106.2	ND	1.0		ND	4.3	
Xylene (Ortho)	95-47-6	106.2	ND	0.50		ND	2.2	
Styrene	100-42-5	104.1	ND	0.50		ND	2.1	
Isopropylbenzene (cumene)	98-82-8	120.19	ND	0.50		ND	2.5	
Bromoform	75-25-2	252.8	ND	0.50		ND	5.2	
1,1,2,2-Tetrachloroethane	79-34-5	167.9	ND	0.50		ND	3.4	
4-Ethyltoluene	622-96-8	120.2	ND	0.50		ND	2.5	
1,3,5-Trimethylbenzene	108-67-8	120.2	ND	0.50		ND	2.5	
2-Chlorotoluene	95-49-8	126.6	ND	0.50		ND	2.6	
1,2,4-Trimethylbenzene	95-63-6	120.2	ND	0.50		ND	2.5	
1,3-Dichlorobenzene	541-73-1	147.0	ND	0.50		ND	3.0	
1,4-Dichlorobenzene	106-46-7	147.0	ND	0.50		ND	3.0	
Benzyl chloride	100-44-7	126.0	ND	0.50		ND	2.6	
1,2-Dichlorobenzene	95-50-1	147.0	ND	0.50		ND	3.0	
1,2,4-Trichlorobenzene	120-82-1	181.5	ND	0.50		ND	3.7	
Hexachloro-1,3-butadiene	87-68-3	260.8	ND	0.50		ND	5.3	
Naphthalene	91-20-3	128.17	ND	0.50		ND	2.6	
Total Target Compound Concentrations:			**87**	**ppbv**		**180**	**ug/m3**	

Surrogate	Result	Spike	Recovery
4-Bromofluorobenzene	11	10	110%

Qualifier Definitions

ND = Non Detect

B = Compound also found in method blank.

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air…" Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).

EMSL Analytical
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http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491800190**
EMSL Sample #: **491800190-1**
Customer ID: **SREC85**
Customer PO: **18013**

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**
Date Collected: **3/1/2018**
Date Received: **3/5/2018**

Project: **EPA 1595 Wynkoop St.**

Sample ID: 0270-2 FI.

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	03/14/2018	KW	K15169.D	E0270	312.5 cc	1

Tentatively Identified Compound Results Summary

Tentatively Identified Compounds	CAS#	MW(1)	Result ppbv	Q	Result ug/m3	Retention Time	Comments
Propane	000074-98-6	44	**3.6**	JN	**6.5**	5.51	
Isobutane	000075-28-5	58	**1.2**	JN	**2.8**	6.00	
Butane, 2-methyl-	000078-78-4	72	**2.1**	JN	**6.2**	8.09	
Pentane	000109-66-0	72	**1.7**	JN	**5.1**	9.02	
D-Limonene	005989-27-5	136	**1.4**	JN	**7.6**	29.10	
Total TIC Concentrations:			**10**	**ppbv**	**28**	**ug/m3**	

Qualifier Definitions

(1) = If unknown, MW is assigned as equivalent Toluene (92) for ug/m3 conversion purposes.

B = Compound also found in method blank.

J= Estimated value based on a 1:1 response to internal standard.

N= Presumptive evidence of compound based on library match.

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air…" Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).

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EMSL Order #: **491800190**
EMSL Sample #: **491800190-1**
Customer ID: **SREC85**
Customer PO: **18013**

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**
Date Collected: **3/1/2018**
Date Received: **3/5/2018**

Project: **EPA 1595 Wynkoop St.**
Sample ID: 0270-2 FI.

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	03/14/2018	KW	K15169.D	E0270	312.5 cc	1

Total Volatile Organic Compounds (TVOC) Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
Chloromethane	74-87-3	50.49	**0.70**	0.50		**1.4**	1.0	
n-Butane	106-97-8	58.12	**5.8**	0.50		**14**	1.2	
Ethanol	64-17-5	46.07	**47**	0.50	E	**88**	0.94	
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	**4.8**	0.50		**12**	1.2	
Acetone	67-64-1	58.08	**7.4**	0.50		**18**	1.2	
Acetonitrile	75-05-8	41.00	**17**	0.50		**28**	0.84	
2-Butanone(MEK)	78-93-3	72.10	**0.58**	0.50		**1.7**	1.5	
Ethyl acetate	141-78-6	88.10	**0.80**	0.50		**2.9**	1.8	
Cyclohexane	110-82-7	84.16	**2.2**	0.50		**7.5**	1.7	
Toluene	108-88-3	92.14	**1.1**	0.50		**4.0**	1.9	
Total Target Compound Concentrations:			**87**	**ppbv**		**180**	**ug/m3**	

Qualifier Definitions

B = Compound also found in method blank.

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.

Tentatively Identified Compounds	CAS#	MW(1)	Result ppbv		Q	Result ug/m3	Retention Time	Comments
Propane	000074-98-6	44	**3.6**		JN	**6.5**	5.51	
Isobutane	000075-28-5	58	**1.2**		JN	**2.8**	6	
Butane, 2-methyl-	000078-78-4	72	**2.1**		JN	**6.2**	8.09	
Pentane	000109-66-0	72	**1.7**		JN	**5.1**	9.02	
D-Limonene	005989-27-5	136	**1.4**		JN	**7.6**	29.1	
Total TIC Concentrations:			**10**	**ppbv**		**28**	**ug/m3**	

Qualifier Definitions

(1) = If unknown, MW is assigned as equivalent Toluene (92) for ug/m3 conversion purposes.

B = Compound also found in method blank.

J= Estimated value based on a 1:1 response to internal standard.

N= Presumptive evidence of compound based on library match.

Total Volatile Organic Compounds (TVOCs):	100	ppbv	210	ug/m3

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EMSL Order #: **491800190**
EMSL Sample #: **491800190-2**
Customer ID: **SREC85**
Customer PO: **18013**

Attn: **Alex Green**
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Phone: **303-297-1645**
Fax: **303-297-1646**
Date Collected: **3/1/2018**
Date Received: **3/5/2018**

Project: **EPA 1595 Wynkoop St.**

Sample ID: 0392 - 5 Fl.

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	03/14/2018	KW	K15170.D	E0392	305 cc	1

Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
Propylene	115-07-1	42.08	ND	1.0		ND	1.7	
Freon 12(Dichlorodifluoromethane)	75-71-8	120.9	ND	0.50		ND	2.5	
Freon 114(1,2-Dichlorotetrafluoroethan	76-14-2	170.9	ND	0.50		ND	3.5	
Chloromethane	74-87-3	50.49	**0.92**	0.50		**1.9**	1.0	
n-Butane	106-97-8	58.12	**6.5**	0.50		**15**	1.2	
Vinyl chloride	75-01-4	62.50	ND	0.50		ND	1.3	
1,3-Butadiene	106-99-0	54.09	ND	0.50		ND	1.1	
Bromomethane	74-83-9	94.94	ND	0.50		ND	1.9	
Chloroethane	75-00-3	64.52	ND	0.50		ND	1.3	
Ethanol	64-17-5	46.07	**35**	0.50		**66**	0.94	
Bromoethene(Vinyl bromide)	593-60-2	106.9	ND	0.50		ND	2.2	
Freon 11(Trichlorofluoromethane)	75-69-4	137.4	ND	0.50		ND	2.8	
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	**3.2**	0.50		**7.7**	1.2	
Freon 113(1,1,2-Trichlorotrifluoroethan	76-13-1	187.4	ND	0.50		ND	3.8	
Acetone	67-64-1	58.08	**12**	0.50		**29**	1.2	
1,1-Dichloroethene	75-35-4	96.94	ND	0.50		ND	2.0	
Acetonitrile	75-05-8	41.00	**27**	0.50		**46**	0.84	
Tertiary butyl alcohol(TBA)	75-65-0	74.12	ND	0.50		ND	1.5	
Bromoethane(Ethyl bromide)	74-96-4	108.0	ND	0.50		ND	2.2	
3-Chloropropene(Allyl chloride)	107-05-1	76.53	ND	0.50		ND	1.6	
Carbon disulfide	75-15-0	76.14	ND	0.50		ND	1.6	
Methylene chloride	75-09-2	84.94	ND	0.50		ND	1.7	
Acrylonitrile	107-13-1	53.00	ND	0.50		ND	1.1	
Methyl-tert-butyl ether(MTBE)	1634-04-4	88.15	ND	0.50		ND	1.8	
trans-1,2-Dichloroethene	156-60-5	96.94	ND	0.50		ND	2.0	
n-Hexane	110-54-3	86.17	ND	0.50		ND	1.8	
1,1-Dichloroethane	75-34-3	98.96	ND	0.50		ND	2.0	
Vinyl acetate	108-05-4	86.00	ND	0.50		ND	1.8	
2-Butanone(MEK)	78-93-3	72.10	ND	0.50		ND	1.5	
cis-1,2-Dichloroethene	156-59-2	96.94	ND	0.50		ND	2.0	
Ethyl acetate	141-78-6	88.10	**1.1**	0.50		**4.1**	1.8	
Chloroform	67-66-3	119.4	ND	0.50		ND	2.4	
Tetrahydrofuran	109-99-9	72.11	ND	0.50		ND	1.5	
1,1,1-Trichloroethane	71-55-6	133.4	ND	0.50		ND	2.7	
Cyclohexane	110-82-7	84.16	ND	0.50		ND	1.7	
2,2,4-Trimethylpentane(Isooctane)	540-84-1	114.2	ND	0.50		ND	2.3	
Carbon tetrachloride	56-23-5	153.8	ND	0.50		ND	3.1	
n-Heptane	142-82-5	100.2	ND	0.50		ND	2.0	
1,2-Dichloroethane	107-06-2	98.96	ND	0.50		ND	2.0	
Benzene	71-43-2	78.11	ND	0.50		ND	1.6	
Trichloroethene	79-01-6	131.4	ND	0.50		ND	2.7	
1,2-Dichloropropane	78-87-5	113.0	ND	0.50		ND	2.3	
Methyl Methacrylate	80-62-6	100.12	ND	0.50		ND	2.0	
Bromodichloromethane	75-27-4	163.8	ND	0.50		ND	3.3	
1,4-Dioxane	123-91-1	88.12	ND	0.50		ND	1.8	
4-Methyl-2-pentanone(MIBK)	108-10-1	100.2	ND	0.50		ND	2.0	

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EMSL Order #: **491800190**
EMSL Sample #: **491800190-2**
Customer ID: **SREC85**
Customer PO: **18013**

Attn: **Alex Green**
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Phone: **303-297-1645**
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Date Collected: **3/1/2018**
Date Received: **3/5/2018**

Project: **EPA 1595 Wynkoop St.**

Sample ID: 0392 - 5 Fl.

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	03/14/2018	KW	K15170.D	E0392	305 cc	1

Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
cis-1,3-Dichloropropene	10061-01-5	111.0	ND	0.50		ND	2.3	
Toluene	108-88-3	92.14	**0.69**	0.50		**2.6**	1.9	
trans-1,3-Dichloropropene	10061-02-6	111.0	ND	0.50		ND	2.3	
1,1,2-Trichloroethane	79-00-5	133.4	ND	0.50		ND	2.7	
2-Hexanone(MBK)	591-78-6	100.1	ND	0.50		ND	2.0	
Tetrachloroethene	127-18-4	165.8	ND	0.50		ND	3.4	
Dibromochloromethane	124-48-1	208.3	ND	0.50		ND	4.3	
1,2-Dibromoethane	106-93-4	187.8	ND	0.50		ND	3.8	
Chlorobenzene	108-90-7	112.6	ND	0.50		ND	2.3	
Ethylbenzene	100-41-4	106.2	ND	0.50		ND	2.2	
Xylene (p,m)	1330-20-7	106.2	ND	1.0		ND	4.3	
Xylene (Ortho)	95-47-6	106.2	ND	0.50		ND	2.2	
Styrene	100-42-5	104.1	ND	0.50		ND	2.1	
Isopropylbenzene (cumene)	98-82-8	120.19	ND	0.50		ND	2.5	
Bromoform	75-25-2	252.8	ND	0.50		ND	5.2	
1,1,2,2-Tetrachloroethane	79-34-5	167.9	ND	0.50		ND	3.4	
4-Ethyltoluene	622-96-8	120.2	ND	0.50		ND	2.5	
1,3,5-Trimethylbenzene	108-67-8	120.2	ND	0.50		ND	2.5	
2-Chlorotoluene	95-49-8	126.6	ND	0.50		ND	2.6	
1,2,4-Trimethylbenzene	95-63-6	120.2	ND	0.50		ND	2.5	
1,3-Dichlorobenzene	541-73-1	147.0	ND	0.50		ND	3.0	
1,4-Dichlorobenzene	106-46-7	147.0	ND	0.50		ND	3.0	
Benzyl chloride	100-44-7	126.0	ND	0.50		ND	2.6	
1,2-Dichlorobenzene	95-50-1	147.0	ND	0.50		ND	3.0	
1,2,4-Trichlorobenzene	120-82-1	181.5	ND	0.50		ND	3.7	
Hexachloro-1,3-butadiene	87-68-3	260.8	ND	0.50		ND	5.3	
Naphthalene	91-20-3	128.17	ND	0.50		ND	2.6	
Total Target Compound Concentrations:			**86**	**ppbv**		**170**	**ug/m3**	

Surrogate	Result	Spike	Recovery
4-Bromofluorobenzene	11	10	110%

Qualifier Definitions

ND = Non Detect

B = Compound also found in method blank.

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air…" Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).

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EMSL Order #: **491800190**
EMSL Sample #: **491800190-2**
Customer ID: **SREC85**
Customer PO: **18013**

Attn: **Alex Green**
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Phone: **303-297-1645**
Fax: **303-297-1646**
Date Collected: **3/1/2018**
Date Received: **3/5/2018**

Project: **EPA 1595 Wynkoop St.**

Sample ID: 0392 - 5 Fl.

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	03/14/2018	KW	K15170.D	E0392	305 cc	1

Tentatively Identified Compound Results Summary

Tentatively Identified Compounds	CAS#	MW(1)	Result ppbv	Q	Result ug/m3	Retention Time	Comments
Propane	000074-98-6	44	**5.1**	JN	**9.1**	5.51	
Isobutane	000075-28-5	58	**2.2**	JN	**5.2**	6.00	
Butane, 2-methyl-	000078-78-4	72	**1.1**	JN	**3.1**	8.08	
D-Limonene	005989-27-5	136	**1.6**	JN	**8.6**	29.10	
Total TIC Concentrations:			**10**	**ppbv**	**26**	**ug/m3**	

Qualifier Definitions

(1) = If unknown, MW is assigned as equivalent Toluene (92) for ug/m3 conversion purposes.

B = Compound also found in method blank.

J= Estimated value based on a 1:1 response to internal standard.

N= Presumptive evidence of compound based on library match.

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air…" Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).

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EMSL Order #: **491800190**
EMSL Sample #: **491800190-2**
Customer ID: **SREC85**
Customer PO: **18013**

Attn: **Alex Green**
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5801 Logan Street, #200
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Phone: **303-297-1645**
Fax: **303-297-1646**
Date Collected: **3/1/2018**
Date Received: **3/5/2018**

Project: **EPA 1595 Wynkoop St.**
Sample ID: 0392 - 5 Fl.

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	03/14/2018	KW	K15170.D	E0392	305 cc	1

Total Volatile Organic Compounds (TVOC) Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
Chloromethane	74-87-3	50.49	**0.92**	0.50		**1.9**	1.0	
n-Butane	106-97-8	58.12	**6.5**	0.50		**15**	1.2	
Ethanol	64-17-5	46.07	**35**	0.50		**66**	0.94	
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	**3.2**	0.50		**7.7**	1.2	
Acetone	67-64-1	58.08	**12**	0.50		**29**	1.2	
Acetonitrile	75-05-8	41.00	**27**	0.50		**46**	0.84	
Ethyl acetate	141-78-6	88.10	**1.1**	0.50		**4.1**	1.8	
Toluene	108-88-3	92.14	**0.69**	0.50		**2.6**	1.9	
Total Target Compound Concentrations:			**86**	**ppbv**		**170**	**ug/m3**	

Qualifier Definitions

B = Compound also found in method blank.

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.

Tentatively Identified Compounds	CAS#	MW(1)	Result ppbv		Q	Result ug/m3	Retention Time	Comments
Propane	000074-98-6	44	**5.1**		JN	**9.1**	5.51	
Isobutane	000075-28-5	58	**2.2**		JN	**5.2**	6	
Butane, 2-methyl-	000078-78-4	72	**1.1**		JN	**3.1**	8.08	
D-Limonene	005989-27-5	136	**1.6**		JN	**8.6**	29.1	
Total TIC Concentrations:			**10**	**ppbv**		**26**	**ug/m3**	

Qualifier Definitions

(1) = If unknown, MW is assigned as equivalent Toluene (92) for ug/m3 conversion purposes.

B = Compound also found in method blank.

J= Estimated value based on a 1:1 response to internal standard.

N= Presumptive evidence of compound based on library match.

Total Volatile Organic Compounds (TVOCs):	100	ppbv	200	ug/m3

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EMSL Order #: **491800190**
EMSL Sample #: **491800190-3**
Customer ID: **SREC85**
Customer PO: **18013**

Attn: **Alex Green**
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Phone: **303-297-1645**
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Date Collected: **3/1/2018**
Date Received: **3/5/2018**

Project: **EPA 1595 Wynkoop St.**
Sample ID: 0415 - 6 Fl.

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	03/14/2018	KW	K15171.D	E0415	312.5 cc	1

Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
Propylene	115-07-1	42.08	ND	1.0		ND	1.7	
Freon 12(Dichlorodifluoromethane)	75-71-8	120.9	ND	0.50		ND	2.5	
Freon 114(1,2-Dichlorotetrafluoroethan	76-14-2	170.9	ND	0.50		ND	3.5	
Chloromethane	74-87-3	50.49	ND	0.50		ND	1.0	
n-Butane	106-97-8	58.12	**6.9**	0.50		**16**	1.2	
Vinyl chloride	75-01-4	62.50	ND	0.50		ND	1.3	
1,3-Butadiene	106-99-0	54.09	ND	0.50		ND	1.1	
Bromomethane	74-83-9	94.94	ND	0.50		ND	1.9	
Chloroethane	75-00-3	64.52	ND	0.50		ND	1.3	
Ethanol	64-17-5	46.07	**37**	0.50		**69**	0.94	
Bromoethene(Vinyl bromide)	593-60-2	106.9	ND	0.50		ND	2.2	
Freon 11(Trichlorofluoromethane)	75-69-4	137.4	ND	0.50		ND	2.8	
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	**4.8**	0.50		**12**	1.2	
Freon 113(1,1,2-Trichlorotrifluoroethan	76-13-1	187.4	ND	0.50		ND	3.8	
Acetone	67-64-1	58.08	**13**	0.50		**30**	1.2	
1,1-Dichloroethene	75-35-4	96.94	ND	0.50		ND	2.0	
Acetonitrile	75-05-8	41.00	**16**	0.50		**27**	0.84	
Tertiary butyl alcohol(TBA)	75-65-0	74.12	ND	0.50		ND	1.5	
Bromoethane(Ethyl bromide)	74-96-4	108.0	ND	0.50		ND	2.2	
3-Chloropropene(Allyl chloride)	107-05-1	76.53	ND	0.50		ND	1.6	
Carbon disulfide	75-15-0	76.14	ND	0.50		ND	1.6	
Methylene chloride	75-09-2	84.94	ND	0.50		ND	1.7	
Acrylonitrile	107-13-1	53.00	ND	0.50		ND	1.1	
Methyl-tert-butyl ether(MTBE)	1634-04-4	88.15	ND	0.50		ND	1.8	
trans-1,2-Dichloroethene	156-60-5	96.94	ND	0.50		ND	2.0	
n-Hexane	110-54-3	86.17	ND	0.50		ND	1.8	
1,1-Dichloroethane	75-34-3	98.96	ND	0.50		ND	2.0	
Vinyl acetate	108-05-4	86.00	ND	0.50		ND	1.8	
2-Butanone(MEK)	78-93-3	72.10	ND	0.50		ND	1.5	
cis-1,2-Dichloroethene	156-59-2	96.94	ND	0.50		ND	2.0	
Ethyl acetate	141-78-6	88.10	**1.1**	0.50		**4.0**	1.8	
Chloroform	67-66-3	119.4	ND	0.50		ND	2.4	
Tetrahydrofuran	109-99-9	72.11	ND	0.50		ND	1.5	
1,1,1-Trichloroethane	71-55-6	133.4	ND	0.50		ND	2.7	
Cyclohexane	110-82-7	84.16	ND	0.50		ND	1.7	
2,2,4-Trimethylpentane(Isooctane)	540-84-1	114.2	ND	0.50		ND	2.3	
Carbon tetrachloride	56-23-5	153.8	ND	0.50		ND	3.1	
n-Heptane	142-82-5	100.2	ND	0.50		ND	2.0	
1,2-Dichloroethane	107-06-2	98.96	ND	0.50		ND	2.0	
Benzene	71-43-2	78.11	ND	0.50		ND	1.6	
Trichloroethene	79-01-6	131.4	ND	0.50		ND	2.7	
1,2-Dichloropropane	78-87-5	113.0	ND	0.50		ND	2.3	
Methyl Methacrylate	80-62-6	100.12	ND	0.50		ND	2.0	
Bromodichloromethane	75-27-4	163.8	ND	0.50		ND	3.3	
1,4-Dioxane	123-91-1	88.12	ND	0.50		ND	1.8	
4-Methyl-2-pentanone(MIBK)	108-10-1	100.2	ND	0.50		ND	2.0	

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http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491800190**
EMSL Sample #: **491800190-3**
Customer ID: **SREC85**
Customer PO: **18013**

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**
Date Collected: **3/1/2018**
Date Received: **3/5/2018**

Project: **EPA 1595 Wynkoop St.**

Sample ID: 0415 - 6 Fl.

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	03/14/2018	KW	K15171.D	E0415	312.5 cc	1

Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
cis-1,3-Dichloropropene	10061-01-5	111.0	ND	0.50		ND	2.3	
Toluene	108-88-3	92.14	**0.74**	0.50		**2.8**	1.9	
trans-1,3-Dichloropropene	10061-02-6	111.0	ND	0.50		ND	2.3	
1,1,2-Trichloroethane	79-00-5	133.4	ND	0.50		ND	2.7	
2-Hexanone(MBK)	591-78-6	100.1	ND	0.50		ND	2.0	
Tetrachloroethene	127-18-4	165.8	ND	0.50		ND	3.4	
Dibromochloromethane	124-48-1	208.3	ND	0.50		ND	4.3	
1,2-Dibromoethane	106-93-4	187.8	ND	0.50		ND	3.8	
Chlorobenzene	108-90-7	112.6	ND	0.50		ND	2.3	
Ethylbenzene	100-41-4	106.2	ND	0.50		ND	2.2	
Xylene (p,m)	1330-20-7	106.2	ND	1.0		ND	4.3	
Xylene (Ortho)	95-47-6	106.2	ND	0.50		ND	2.2	
Styrene	100-42-5	104.1	ND	0.50		ND	2.1	
Isopropylbenzene (cumene)	98-82-8	120.19	ND	0.50		ND	2.5	
Bromoform	75-25-2	252.8	ND	0.50		ND	5.2	
1,1,2,2-Tetrachloroethane	79-34-5	167.9	ND	0.50		ND	3.4	
4-Ethyltoluene	622-96-8	120.2	ND	0.50		ND	2.5	
1,3,5-Trimethylbenzene	108-67-8	120.2	ND	0.50		ND	2.5	
2-Chlorotoluene	95-49-8	126.6	ND	0.50		ND	2.6	
1,2,4-Trimethylbenzene	95-63-6	120.2	ND	0.50		ND	2.5	
1,3-Dichlorobenzene	541-73-1	147.0	ND	0.50		ND	3.0	
1,4-Dichlorobenzene	106-46-7	147.0	ND	0.50		ND	3.0	
Benzyl chloride	100-44-7	126.0	ND	0.50		ND	2.6	
1,2-Dichlorobenzene	95-50-1	147.0	ND	0.50		ND	3.0	
1,2,4-Trichlorobenzene	120-82-1	181.5	ND	0.50		ND	3.7	
Hexachloro-1,3-butadiene	87-68-3	260.8	ND	0.50		ND	5.3	
Naphthalene	91-20-3	128.17	ND	0.50		ND	2.6	
Total Target Compound Concentrations:			**80**	**ppbv**		**160**	**ug/m3**	

Surrogate	Result	Spike	Recovery
4-Bromofluorobenzene	11	10	110%

Qualifier Definitions

ND = Non Detect

B = Compound also found in method blank.

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air…" Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).

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EMSL Order #:	**491800190**
EMSL Sample #:	**491800190-3**
Customer ID:	**SREC85**
Customer PO:	**18013**

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**
Date Collected: **3/1/2018**
Date Received: **3/5/2018**

Project: **EPA 1595 Wynkoop St.**

Sample ID: 0415 - 6 Fl.

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	03/14/2018	KW	K15171.D	E0415	312.5 cc	1

Tentatively Identified Compound Results Summary

Tentatively Identified Compounds	CAS#	MW(1)	Result ppbv	Q	Result ug/m3	Retention Time	Comments
Propane	000074-98-6	44	5.0	JN	9.0	5.51	
Isobutane	000075-28-5	58	2.1	JN	5.1	6.00	
D-Limonene	005989-27-5	136	1.5	JN	8.3	29.09	
		Total TIC Concentrations:	8.6	ppbv	22	ug/m3	

Qualifier Definitions

(1) = If unknown, MW is assigned as equivalent Toluene (92) for ug/m3 conversion purposes.

B = Compound also found in method blank.

J= Estimated value based on a 1:1 response to internal standard.

N= Presumptive evidence of compound based on library match.

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air…" Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).

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EMSL Order #: **491800190**
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Project: **EPA 1595 Wynkoop St.**
Sample ID: 0415 - 6 Fl.

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	03/14/2018	KW	K15171.D	E0415	312.5 cc	1

Total Volatile Organic Compounds (TVOC) Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
n-Butane	106-97-8	58.12	**6.9**	0.50		**16**	1.2	
Ethanol	64-17-5	46.07	**37**	0.50		**69**	0.94	
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	**4.8**	0.50		**12**	1.2	
Acetone	67-64-1	58.08	**13**	0.50		**30**	1.2	
Acetonitrile	75-05-8	41.00	**16**	0.50		**27**	0.84	
Ethyl acetate	141-78-6	88.10	**1.1**	0.50		**4.0**	1.8	
Toluene	108-88-3	92.14	**0.74**	0.50		**2.8**	1.9	
Total Target Compound Concentrations:			**80**	**ppbv**		**160**	**ug/m3**	

Qualifier Definitions

B = Compound also found in method blank.

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.

Tentatively Identified Compounds	CAS#	MW(1)	Result ppbv		Q	Result ug/m3	Retention Time	Comments
Propane	000074-98-6	44	**5.0**		JN	**9.0**	5.51	
Isobutane	000075-28-5	58	**2.1**		JN	**5.1**	6	
D-Limonene	005989-27-5	136	**1.5**		JN	**8.3**	29.09	
Total TIC Concentrations:			**8.6**	**ppbv**		**22**	**ug/m3**	

Qualifier Definitions

(1) = If unknown, MW is assigned as equivalent Toluene (92) for ug/m3 conversion purposes.

B = Compound also found in method blank.

J= Estimated value based on a 1:1 response to internal standard.

N= Presumptive evidence of compound based on library match.

Total Volatile Organic Compounds (TVOCs):	89	ppbv	180	ug/m3

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EMSL Order #: **491800190**
EMSL Sample #: **491800190-4**
Customer ID: **SREC85**
Customer PO: **18013**

Attn: **Alex Green**
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Phone: **303-297-1645**
Fax: **303-297-1646**
Date Collected: **3/1/2018**
Date Received: **3/5/2018**

Project: **EPA 1595 Wynkoop St.**
Sample ID: 15341 - 7 Fl.

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	03/14/2018	KW	K15172.D	E015341	305 cc	1

Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
Propylene	115-07-1	42.08	ND	1.0		ND	1.7	
Freon 12(Dichlorodifluoromethane)	75-71-8	120.9	ND	0.50		ND	2.5	
Freon 114(1,2-Dichlorotetrafluoroethan	76-14-2	170.9	ND	0.50		ND	3.5	
Chloromethane	74-87-3	50.49	**0.82**	0.50		**1.7**	1.0	
n-Butane	106-97-8	58.12	**5.8**	0.50		**14**	1.2	
Vinyl chloride	75-01-4	62.50	ND	0.50		ND	1.3	
1,3-Butadiene	106-99-0	54.09	ND	0.50		ND	1.1	
Bromomethane	74-83-9	94.94	ND	0.50		ND	1.9	
Chloroethane	75-00-3	64.52	ND	0.50		ND	1.3	
Ethanol	64-17-5	46.07	**34**	0.50		**65**	0.94	
Bromoethene(Vinyl bromide)	593-60-2	106.9	ND	0.50		ND	2.2	
Freon 11(Trichlorofluoromethane)	75-69-4	137.4	ND	0.50		ND	2.8	
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	**4.0**	0.50		**10**	1.2	
Freon 113(1,1,2-Trichlorotrifluoroethan	76-13-1	187.4	ND	0.50		ND	3.8	
Acetone	67-64-1	58.08	**7.3**	0.50		**17**	1.2	
1,1-Dichloroethene	75-35-4	96.94	ND	0.50		ND	2.0	
Acetonitrile	75-05-8	41.00	**2.5**	0.50		**4.2**	0.84	
Tertiary butyl alcohol(TBA)	75-65-0	74.12	ND	0.50		ND	1.5	
Bromoethane(Ethyl bromide)	74-96-4	108.0	ND	0.50		ND	2.2	
3-Chloropropene(Allyl chloride)	107-05-1	76.53	ND	0.50		ND	1.6	
Carbon disulfide	75-15-0	76.14	ND	0.50		ND	1.6	
Methylene chloride	75-09-2	84.94	ND	0.50		ND	1.7	
Acrylonitrile	107-13-1	53.00	ND	0.50		ND	1.1	
Methyl-tert-butyl ether(MTBE)	1634-04-4	88.15	ND	0.50		ND	1.8	
trans-1,2-Dichloroethene	156-60-5	96.94	ND	0.50		ND	2.0	
n-Hexane	110-54-3	86.17	ND	0.50		ND	1.8	
1,1-Dichloroethane	75-34-3	98.96	ND	0.50		ND	2.0	
Vinyl acetate	108-05-4	86.00	ND	0.50		ND	1.8	
2-Butanone(MEK)	78-93-3	72.10	**0.62**	0.50		**1.8**	1.5	
cis-1,2-Dichloroethene	156-59-2	96.94	ND	0.50		ND	2.0	
Ethyl acetate	141-78-6	88.10	**1.1**	0.50		**4.0**	1.8	
Chloroform	67-66-3	119.4	ND	0.50		ND	2.4	
Tetrahydrofuran	109-99-9	72.11	ND	0.50		ND	1.5	
1,1,1-Trichloroethane	71-55-6	133.4	ND	0.50		ND	2.7	
Cyclohexane	110-82-7	84.16	**0.66**	0.50		**2.3**	1.7	
2,2,4-Trimethylpentane(Isooctane)	540-84-1	114.2	ND	0.50		ND	2.3	
Carbon tetrachloride	56-23-5	153.8	ND	0.50		ND	3.1	
n-Heptane	142-82-5	100.2	ND	0.50		ND	2.0	
1,2-Dichloroethane	107-06-2	98.96	ND	0.50		ND	2.0	
Benzene	71-43-2	78.11	ND	0.50		ND	1.6	
Trichloroethene	79-01-6	131.4	ND	0.50		ND	2.7	
1,2-Dichloropropane	78-87-5	113.0	ND	0.50		ND	2.3	
Methyl Methacrylate	80-62-6	100.12	ND	0.50		ND	2.0	
Bromodichloromethane	75-27-4	163.8	ND	0.50		ND	3.3	
1,4-Dioxane	123-91-1	88.12	ND	0.50		ND	1.8	
4-Methyl-2-pentanone(MIBK)	108-10-1	100.2	ND	0.50		ND	2.0	

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EMSL Order #: **491800190**
EMSL Sample #: **491800190-4**
Customer ID: **SREC85**
Customer PO: **18013**

Attn: **Alex Green**
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Phone: **303-297-1645**
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Date Collected: **3/1/2018**
Date Received: **3/5/2018**

Project: **EPA 1595 Wynkoop St.**
Sample ID: 15341 - 7 Fl.

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	03/14/2018	KW	K15172.D	E015341	305 cc	1

Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
cis-1,3-Dichloropropene	10061-01-5	111.0	ND	0.50		ND	2.3	
Toluene	108-88-3	92.14	1.2	0.50		4.5	1.9	
trans-1,3-Dichloropropene	10061-02-6	111.0	ND	0.50		ND	2.3	
1,1,2-Trichloroethane	79-00-5	133.4	ND	0.50		ND	2.7	
2-Hexanone(MBK)	591-78-6	100.1	ND	0.50		ND	2.0	
Tetrachloroethene	127-18-4	165.8	ND	0.50		ND	3.4	
Dibromochloromethane	124-48-1	208.3	ND	0.50		ND	4.3	
1,2-Dibromoethane	106-93-4	187.8	ND	0.50		ND	3.8	
Chlorobenzene	108-90-7	112.6	ND	0.50		ND	2.3	
Ethylbenzene	100-41-4	106.2	ND	0.50		ND	2.2	
Xylene (p,m)	1330-20-7	106.2	ND	1.0		ND	4.3	
Xylene (Ortho)	95-47-6	106.2	ND	0.50		ND	2.2	
Styrene	100-42-5	104.1	ND	0.50		ND	2.1	
Isopropylbenzene (cumene)	98-82-8	120.19	ND	0.50		ND	2.5	
Bromoform	75-25-2	252.8	ND	0.50		ND	5.2	
1,1,2,2-Tetrachloroethane	79-34-5	167.9	ND	0.50		ND	3.4	
4-Ethyltoluene	622-96-8	120.2	ND	0.50		ND	2.5	
1,3,5-Trimethylbenzene	108-67-8	120.2	ND	0.50		ND	2.5	
2-Chlorotoluene	95-49-8	126.6	ND	0.50		ND	2.6	
1,2,4-Trimethylbenzene	95-63-6	120.2	ND	0.50		ND	2.5	
1,3-Dichlorobenzene	541-73-1	147.0	ND	0.50		ND	3.0	
1,4-Dichlorobenzene	106-46-7	147.0	ND	0.50		ND	3.0	
Benzyl chloride	100-44-7	126.0	ND	0.50		ND	2.6	
1,2-Dichlorobenzene	95-50-1	147.0	ND	0.50		ND	3.0	
1,2,4-Trichlorobenzene	120-82-1	181.5	ND	0.50		ND	3.7	
Hexachloro-1,3-butadiene	87-68-3	260.8	ND	0.50		ND	5.3	
Naphthalene	91-20-3	128.17	ND	0.50		ND	2.6	
Total Target Compound Concentrations:			**58**	**ppbv**		**120**	**ug/m3**	

Surrogate	Result	Spike	Recovery
4-Bromofluorobenzene	11	10	110%

Qualifier Definitions

ND = Non Detect

B = Compound also found in method blank.

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air…" Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).

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EMSL Sample #: **491800190-4**
Customer ID: **SREC85**
Customer PO: **18013**

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Phone: **303-297-1645**
Fax: **303-297-1646**
Date Collected: **3/1/2018**
Date Received: **3/5/2018**

Project: **EPA 1595 Wynkoop St.**

Sample ID: 15341 - 7 Fl.

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	03/14/2018	KW	K15172.D	E015341	305 cc	1

Tentatively Identified Compound Results Summary

Tentatively Identified Compounds	CAS#	MW(1)	Result ppbv	Q	Result ug/m3	Retention Time	Comments
Propane	000074-98-6	44	**3.6**	JN	**6.5**	5.51	
Isobutane	000075-28-5	58	**1.5**	JN	**3.6**	6.00	
Butane, 2-methyl-	000078-78-4	72	**1.9**	JN	**5.7**	8.10	
Pentane	000109-66-0	72	**1.5**	JN	**4.5**	9.03	
D-Limonene	005989-27-5	136	**3.3**	JN	**18**	29.10	
Total TIC Concentrations:			**12**	**ppbv**	**38**	**ug/m3**	

Qualifier Definitions

(1) = If unknown, MW is assigned as equivalent Toluene (92) for ug/m3 conversion purposes.

B = Compound also found in method blank.

J= Estimated value based on a 1:1 response to internal standard.

N= Presumptive evidence of compound based on library match.

Method Reference

USEPA: Compendium Method TO-15, “Determination of Volatile Organic Compounds (VOCs) in Air…" Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).

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EMSL Order #: **491800190**
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Project: **EPA 1595 Wynkoop St.**
Sample ID: 15341 - 7 Fl.

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	03/14/2018	KW	K15172.D	E015341	305 cc	1

Total Volatile Organic Compounds (TVOC) Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
n-Butane	106-97-8	58.12	**5.8**	0.50		**14**	1.2	
Ethanol	64-17-5	46.07	**34**	0.50		**65**	0.94	
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	**4.0**	0.50		**10**	1.2	
Acetone	67-64-1	58.08	**7.3**	0.50		**17**	1.2	
Acetonitrile	75-05-8	41.00	**2.5**	0.50		**4.2**	0.84	
Ethyl acetate	141-78-6	88.10	**1.1**	0.50		**4.0**	1.8	
Toluene	108-88-3	92.14	**1.2**	0.50		**4.5**	1.9	
Total Target Compound Concentrations:			**58**	**ppbv**		**120**	**ug/m3**	

Qualifier Definitions

B = Compound also found in method blank.

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.

Tentatively Identified Compounds	CAS#	MW(1)	Result ppbv		Q	Result ug/m3	Retention Time	Comments
Propane	000074-98-6	44	**3.6**		JN	**6.5**	5.51	
Isobutane	000075-28-5	58	**1.5**		JN	**3.6**	6	
Butane, 2-methyl-	000078-78-4	72	**1.9**		JN	**5.7**	8.1	
Total TIC Concentrations:			**12**	**ppbv**		**38**	**ug/m3**	

Qualifier Definitions

(1) = If unknown, MW is assigned as equivalent Toluene (92) for ug/m3 conversion purposes.

B = Compound also found in method blank.

J= Estimated value based on a 1:1 response to internal standard.

N= Presumptive evidence of compound based on library match.

Total Volatile Organic Compounds (TVOCs):	70	ppbv	160	ug/m3

USEPA TO-15
External Chain of Custody/ Field Test Data Sheet

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Ph. (800) 220-3675
Fax (856) 786-0327

EMSL ANALYTICAL, INC.

EMSL Order Number (Lab Use Only): 491800190

Report To Contact Name:	Bill To Company:	Sampled By (Sign):
Company Name: S&R environmental	Attention To: SAME	Sampled By (Name): Alex Green
Address 1: 5801 Logan St	Address 1:	Total # of Samples: 4
Address 2: Denver, CO 80216	Address 2:	Date Shipped: 3/2/18
Phone No.: Fax:	Phone No.: Fax:	Sample Collection Zip Code: 80202
Email Results To: Alex@srenvironmentalconsulting.com	Project Name: EPA 1595 Wynkoop St	Purchase Order: 018013

Turnaround Time (In Business Days): ☒ ~~10~~ Day Standard ☐ 5 Day ☐ 4 Day ☐ 3 Day ☐ 2 Day ☐ 1 Day ☐ Other

Reporting Format: ☒ Results Only (Standard Lab Report) ☐ Full Deliverables (Surcharge may apply) ☐ Other

EMSL Sample Identifier	Client Field Sample Identification	Field Use - All Information Required! Sampling Start Information Barometric Pres. ("Hg): Start Date	Time (24 hr clock)	Canister Pressure ("Hg)	Interior Temp. (F)	Sampling Stop Information Barometric Pres. ("Hg): Stop Date	Time (24 hr clock)	Canister Pressure ("Hg)	Interior Temp. (F)	Lab Use Only Canister Information: Canister ID	Size (L)	Can Cert Batch ID	Outgoing Pressure ("Hg)	Incoming Pressure ("Hg)	Flow Contoller: Reg. ID	Cal Flow (ml/min)	Analysis: USEPA TO-15	NJDEP LLTO-15	LIBRARY SEARCH	Other (Specify)	Matrix: Indoor/ Ambient Air	Soil Gas	Landfill/ Vent
	0270-2FL	3-1-18	10:15	30		3-1-18	14:15	7		E0270	6	C3563	-30.0	-6.8	3652	21.2	X				X		
	0392-5FL	2-28-18	10:50	25		2-28-18	14:45	0		0392				-6.0	3708		X				X		
	0415-6FL	2-28-18	10:45	25		2-28-18	14:40	4		0415				-9.4	3768		X				X		
	15341-7FL	3-1-18	10:10	28		3-1-18	14:10	4		15341				-6.0	7884		X				X		

RECEIVED EMSL CINNAMINSON, NJ MAR -5 AM 7:18

Comments: 0270-2FL used REG ID - 3768 | 0392-5FL used REG 3652
15341-7FL used REG-ID - 3708 | 0415-6FL used REG 7884

Lab Canister Certification
Analyst Signature (TO-15):

Relinquished by:	Date/ Time	Received by:	Date/ Time	Seal #/Intact	Reason for Exchange (circle appropriate)
Carly Peters	2/23/18 1629	ADe	2/27/18	320-321	(Shipping) Courier Receiving Sampling Other:
ADe	3/2/18 14:30	AR FX	3/5/18	0940 323	(Shipping) Courier Receiving Sampling Other:
amendenhahn	3/5/18 0940	AmTOx	3/05/18/1143		Shipping Courier Receiving Sampling (Other)
					Shipping Courier Receiving Sampling Other:
					Shipping Courier Receiving Sampling Other:

795435930414

491800190

TO-15 Sample Information

Please fill out this worksheet in addition to the Chain of Custody form. This information helps us to best analyze your samples, achieve requested TAT, and provide you with helpful interpretation information.

Company: SqR Environmental Consulting

Contact Person:

Name: Alex Green

E-mail: alex@sqrenvironmentalconsulting.com

Additional E-mails: / /

Telephone #: 303-297-1645

Library Search requested: [ ] YES [X] NO

A library search (*aka Tentatively Identified Compounds*) will identify up to 20 of the largest, non-target peaks that are not part of the standard TO-15 list of 74 compounds. If you are performing an Indoor Air Quality or odor investigation, the library search is recommended to provide you with all available information for your sample.

Sample Type:

[X] **Indoor Air Quality (Home/Office)**
[ ] **IAQ (Industrial)**
[ ] **Other:**
[ ] **Soil Gas/Sub Slab**

Sample Description: _____

PLEASE NOTE: The result forms we provide will not indicate whether your results have exceeded any Exposure Limit criteria established by any regulatory agency. If you would like that information, please check off below which regulatory comparison forms you would like to receive.

[X] **OSHA PELs/NIOSH RELs**	*combined form*		[X] **Potential Sources of Compounds found in your IAQ sample**		
[ ] **EPA RSLs** - *11/2017*	Residential	Industrial	[X] **TVOC (Library Search Required for this format)**		
[ ] **NJ DEP** *1/2018* **- Circle one:**	VI-Indoor AQ	VI-Soil Gas	[ ] **Ohio** *4/2013* **-Circle one:**	Residential	Commercial
[ ] **NC DENR** *4/2014* **-Circle one:**	Residential	Non-residential	[ ] **Indiana Dept Env Mgmt Screeening Levels** *3/2016*		
[ ] **PA DEP** - *11/2016*	Indoor Air		[ ] **Vermont DEP IROCP** *4/2012* **(soil gas only)**		
[ ] **PA DEP-** 11/2016: Sub Slab Soil Gas **OR** Near Source Soil Gas			[ ] **California OEHHA** *2/2012*		
[ ] **CA HHSL** *11/2004* **-Circle one:**	Indoor Air	Soil Gas	[ ] **Other; these are the compounds I want reported:**		

Please note: There is an additional charge for any of the tests below. **USEPA TO-3 AND ASTM 5504 analyses can be performed from your canister at the Cinnaminson NJ Laboratory.**

US EPA TO-3 via GC/FID **(choose one below):**

[ ] **C_1-C_6 hydrocarbons**
[ ] **Methane only**

ASTM-D5504 *via GC/SCD* **(choose one below):**

[ ] **Sulfur Scan (H_2S, COS, MeSH, EtSH, DMS)**
[ ] **H_2S only**

Note** : **Hold time for sulfur gases is 1 day from collection. Please schedule your sample collection so samples are received in the lab prior to noon on Friday. Analysis performed out of hold time will have a notation in the report.

We can provide the following CMS tests from your canisters at the **Cinnaminson and Huntington Beach** laboratories. Please note these tests are to be used for IAQ/Screening purposes ONLY. EMSL recommends alternate field sampling techniques for these parameters (with the exception of water vapor); please contact your sales rep for the proper media. Please note: There is an additional charge for any of the tests below.

Draeger CMS Analyzer:
[X] **CO** [X] **CO_2** [ ] **NH_3** [ ] **O2** [ ] **Water Vapor**

Sample Retention Policy: All canisters are guaranteed to be retained for one day after results are reported. Please review your results promptly to ensure your project scope is fully addressed. Cans may be retained for a longer period of time, but arrangements to hold your cans must be made through your customer account representative quickly. Thank you.

EMSL Analytical
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Phone/Fax: (856)858-4800 / (856)858-4571
http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491800190**
EMSL Sample #: **491800190-1**
Customer ID: **SREC85**
Customer PO: **18013**

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**
Date Collected: **3/1/2018**
Date Received: **3/5/2018**

Project: **EPA 1595 Wynkoop St.**

Sample ID: 0270-2 FI.

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	03/14/2018	KW	K15169.D	E0270	312.5 cc	1

NIOSH and OSHA Exposure Limit Comparisons

Target Compounds	Tox. Basis	CAS#	MW	Result ppbv	Q	Result ug/m3	NIOSH REL ug/m3	>	OSHA PEL ug/m3	>
Propylene	NC	115-07-1	42.08	ND		ND	N.E.		N.E.	
Freon 12(Dichlorodifluoromethane)	NC	75-71-8	120.90	ND		ND	4900000		4900000	
Freon 114(1,2-Dichlorotetrafluoroethan	--	76-14-2	170.90	ND		ND	7000000		7000000	
Chloromethane	NC	74-87-3	50.49	0.70		1.4	LFC		210000	
n-Butane	--	106-97-8	58.12	5.8		14	1900000		1900000	
Vinyl chloride	C	75-01-4	62.50	ND		ND	LFC		2600	
1,3-Butadiene	C	106-99-0	54.09	ND		ND	LFC		2200	
Bromomethane	NC	74-83-9	94.94	ND		ND	LFC		78000	
Chloroethane	NC	75-00-3	64.52	ND		ND	LFC		2600000	
Ethanol	--	64-17-5	46.07	47	E	88	1900000		1900000	
Bromoethene(Vinyl bromide)	C	593-60-2	106.90	ND		ND	LFC		N.E.	
Freon 11(Trichlorofluoromethane)	--	75-69-4	137.40	ND		ND	5600000		5600000	
Isopropyl alcohol(2-Propanol)	NC	67-63-0	60.10	4.8		12	980000		980000	
Freon 113(1,1,2-Trichlorotrifluoroethan	NC	76-13-1	187.40	ND		ND	7700000		7700000	
Acetone	NC	67-64-1	58.08	7.4		18	590000		2400000	
1,1-Dichloroethene	NC	75-35-4	96.94	ND		ND	790000		790000	
Acetonitrile	NC	75-05-8	41.00	17		28	34000		67000	
Tertiary butyl alcohol(TBA)	--	75-65-0	74.12	ND		ND	300000		300000	
Bromoethane(Ethyl bromide)	--	74-96-4	108.00	ND		ND	880000		880000	
3-Chloropropene(Allyl chloride)	C	107-05-1	76.53	ND		ND	3100		3100	
Carbon disulfide	NC	75-15-0	76.14	ND		ND	3100		62000	
Methylene chloride	C	75-09-2	84.94	ND		ND	LFC		87000	
Acrylonitrile	C	107-13-1	53.00	ND		ND	2200		4300	
Methyl-tert-butyl ether(MTBE)	C	1634-04-4	88.15	ND		ND	N.E.		N.E.	
trans-1,2-Dichloroethene	--	156-60-5	96.94	ND		ND	790000		790000	
n-Hexane	NC	110-54-3	86.17	ND		ND	180000		1800000	
1,1-Dichloroethane	C	75-34-3	98.96	ND		ND	400000		400000	
Vinyl acetate	NC	108-05-4	86.00	ND		ND	14000		N.E.	
2-Butanone(MEK)	NC	78-93-3	72.10	0.58		1.7	590000		590000	
cis-1,2-Dichloroethene	--	156-59-2	96.94	ND		ND	790000		790000	
Ethyl acetate	NC	141-78-6	88.10	0.80		2.9	1400000		1400000	
Chloroform	C	67-66-3	119.40	ND		ND	9800		240000	
Tetrahydrofuran	NC	109-99-9	72.11	ND		ND	590000		590000	
1,1,1-Trichloroethane	NC	71-55-6	133.40	ND		ND	1900000		1900000	
Cyclohexane	NC	110-82-7	84.16	2.2		7.5	1000000		1000000	
2,2,4-Trimethylpentane(Isooctane)	--	540-84-1	114.20	ND		ND	N.E.		N.E.	
Carbon tetrachloride	C	56-23-5	153.80	ND		ND	13000		63000	
n-Heptane	NC	142-82-5	100.20	ND		ND	350000		2000000	
1,2-Dichloroethane	C	107-06-2	98.96	ND		ND	4000		200000	
Benzene	C	71-43-2	78.11	ND		ND	320		3200	
Trichloroethene	C	79-01-6	131.40	ND		ND	130000		540000	
1,2-Dichloropropane	C	78-87-5	113.00	ND		ND	LFC		350000	
Methyl Methacrylate	NC	80-62-6	100.12	ND		ND	410000		410000	
Bromodichloromethane	C	75-27-4	163.80	ND		ND	N.E.		N.E.	

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EMSL Order #: **491800190**
EMSL Sample #: **491800190-1**
Customer ID: **SREC85**
Customer PO: **18013**

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**
Date Collected: **3/1/2018**
Date Received: **3/5/2018**

Project: **EPA 1595 Wynkoop St.**
Sample ID: 0270-2 FI.

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	03/14/2018	KW	K15169.D	E0270	312.5 cc	1

NIOSH and OSHA Exposure Limit Comparisons

Target Compounds	Tox. Basis	CAS#	MW	Result ppbv	Q	Result ug/m3	NIOSH REL ug/m3	>	OSHA PEL ug/m3	>
1,4-Dioxane	C	123-91-1	88.12	ND		ND	3600		360000	
4-Methyl-2-pentanone(MIBK)	NC	108-10-1	100.20	ND		ND	200000		410000	
cis-1,3-Dichloropropene**	C	10061-01-5	111.00	ND		ND	4500		N.E.	
Toluene	NC	108-88-3	92.14	**1.1**		**4.0**	380000		750000	
trans-1,3-Dichloropropene**	C	10061-02-6	111.00	ND		ND	4500		N.E.	
1,1,2-Trichloroethane	C	79-00-5	133.40	ND		ND	55000		55000	
2-Hexanone(MBK)	NC	591-78-6	100.10	ND		ND	4100		410000	
Tetrachloroethene	C	127-18-4	165.80	ND		ND	LFC		680000	
Dibromochloromethane	--	124-48-1	208.30	ND		ND	N.E.		N.E.	
1,2-Dibromoethane	C	106-93-4	187.80	ND		ND	350		150000	
Chlorobenzene	NC	108-90-7	112.60	ND		ND	N.E.		350000	
Ethylbenzene	C	100-41-4	106.20	ND		ND	430000		430000	
Xylene (p,m)	NC	1330-20-7	106.20	ND		ND	430000		430000	
Xylene (Ortho)	NC	95-47-6	106.20	ND		ND	430000		430000	
Styrene	NC	100-42-5	104.10	ND		ND	210000		430000	
Isopropylbenzene (cumene)	NC	98-82-8	120.19	ND		ND	250000		250000	
Bromoform	C	75-25-2	252.80	ND		ND	5200		5200	
1,1,2,2-Tetrachloroethane	C	79-34-5	167.90	ND		ND	6900		34000	
4-Ethyltoluene	--	622-96-8	120.20	ND		ND	N.E.		N.E.	
1,3,5-Trimethylbenzene	NC	108-67-8	120.20	ND		ND	120000		120000	
2-Chlorotoluene	--	95-49-8	126.60	ND		ND	260000		N.E.	
1,2,4-Trimethylbenzene	NC	95-63-6	120.20	ND		ND	120000		120000	
1,3-Dichlorobenzene	--	541-73-1	147.00	ND		ND	N.E.		N.E.	
1,4-Dichlorobenzene	C	106-46-7	147.00	ND		ND	LFC		450000	
Benzyl chloride	C	100-44-7	126.00	ND		ND	5200		5200	
1,2-Dichlorobenzene	NC	95-50-1	147.00	ND		ND	300000		300000	
1,2,4-Trichlorobenzene	NC	120-82-1	181.50	ND		ND	37000		N.E.	
Hexachloro-1,3-butadiene	C	87-68-3	260.80	ND		ND	210		N.E.	
Naphthalene	C	91-20-3	128.17	ND		ND	52000		52000	

**The concentrations of each isomer should be added if multiple isomers are present and compared to the total screening level.

The > column is used to flag exceedences as marked

Exposure Limit Definitions
REL= Recommended Exposure Limit, PEL= Permissable Exposure Limit

Agency Definitions
NIOSH= The National Institute for Occupational Safety and Health

Reference
Occupational Safety and Health Administration (OSHA) General Industry Air Contaminants Standard (29 CFR 1910.1000)
Toxicity Class (EPA Regionional Screening Levels (RSL) Table, Nov 2017)
C= Carcinogenic
NC= Non-Carcinogenic

Compound Exposure Definitions
NE= No Limit Established
LFC= Lowest Feasible Concentration
NS= No Sscreening Value

Qualifier Definitions
ND = Non Detect
B = Compound also found in method blank.
E= Estimated concentration exceeding upper calibration range.
D= Result reported from diluted analysis.

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EMSL Sample #: **491800190-1**
Customer ID: **SREC85**
Customer PO: **18013**

Attn: **Alex Green**
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5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**
Date Collected: **3/1/2018**
Date Received: **3/5/2018**

Project: **EPA 1595 Wynkoop St.**

Sample ID: 0270-2 FI.

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	03/14/2018	KW	K15169.D	E0270	312.5 cc	1

Possible Background Sources of Contaminants

Target Compounds	CAS#	Result ppbv	Q	Result ug/m3	Use and Possible Sources
Chloromethane	74-87-3	**0.70**		**1.4**	Most (99%) of the chloromethane in the environment comes from natural sources. Because chloromethane is made in the oceans by natural processes, it is present in air all over the world. In most areas, the outside air contains less than 1 part of chloromethane in a billion parts of air (ppb). In cities, human activities, mostly combustion and manufacturing, add to the chloromethane in the air, resulting in somewhat higher levels, up to 1 ppb. Cigarette smoke, polystyrene insulation, and aerosol propellants; home burning of wood, coal, or certain plastics; and chlorinated swimming pools.[4]
n-Butane	106-97-8	**5.8**		**14**	Aerosol spray products for some paints, cosmetics, automotive products, leather treatments, pesticides.[2]
Ethanol	64-17-5	**47**	**E**	**88**	Hand sanitizers, disinfecting wipes. Personal care products: nail polish, nail polish remover, colognes, perfumes, rubbing alcohol, hair spray. [2]
Isopropyl alcohol(2-Propanol)	67-63-0	**4.8**		**12**	Eye Glass Cleaners. Disinfecting wipes. Personal care products: nail polish, nail polish remover, colognes, perfumes, rubbing alcohol, hair spray.[2]
Acetone	67-64-1	**7.4**		**18**	Rubber cement, cleaning fluids, scented candles and nail polish remover.[1]
Acetonitrile	75-05-8	**17**		**28**	Predominantly used as a solvent in the manufacture of pharmaceuticals and in chemical laboratories for the detection of materials such as pesticide residues.[6]
2-Butanone(MEK)	78-93-3	**0.58**		**1.7**	2-Butanone is produced in large quantities. Nearly half of its use is in paints and other coatings because it will quickly evaporate into the air and it dissolves many substances.[4] Can occur from automobile exhaust, printing inks, fragrance/flavoring agent in candy and perfume, paint, glue, cleaning agents and cigarette smoke.[1]
Ethyl acetate	141-78-6	**0.80**		**2.9**	Personal care products: nail polish, nail polish remover, colognes, perfumes, rubbing alcohol, hair spray.[2]
Cyclohexane	110-82-7	**2.2**		**7.5**	Cyclohexane can be added to lacquers and resins, paint and varnish removers, and fungicides. It is also used as a fuel for camp stoves. Exposure can also occur when people use products that contain cyclohexane or when they smoke cigarettes.[4]
Toluene	108-88-3	**1.1**		**4.0**	Toluene is produced in the process of making gasoline and other fuels from crude oil and making coke from coal. Will occur in gasoline exhaust. Toluene is used in making paints, paint thinners, fingernail polish, lacquers, adhesives, and rubber and in some printing and leather tanning processes.[4]

Qualifier Definitions
ND = Non Detect
B = Compound also found in method blank.
E= Estimated concentration exceeding upper calibration range.
D= Result reported from diluted analysis.

Sources References

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Project: **EPA 1595 Wynkoop St.**

Sample ID: 0270-2 FI.

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	03/14/2018	KW	K15169.D	E0270	312.5 cc	1

Possible Background Sources of Contaminants

Target Compounds	CAS#	Result ppbv	Q	Result ug/m3	Use and Possible Sources

(1) NJDEP "Common Household Sources of Background Indoor Air Contamination". June 26, 2012
(2) NYSDOH "Volatile Organic Compounds (VOCs) in Commonly Used Products", 2007
(3) EPA, Air & Radiation, TTN Web - Technology Transfer NetworkAir Toxics Web site, various years.
(4) Agency for Toxic Substances and Disease Registry (ATSDR). U.S. Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA. 1998.
(5) OFFICE OF POLLUTION PREVENTION AND TOXICS, U.S. ENVIRONMENTAL PROTECTION AGENCY, August 1994, EPA 749-F-94-012a
(6) U.S. Environmental Protection Agency, Office of Research and Development, Cincinnati, OH. 1985.
(7) World Health Organization,
(8) Product Safety Assessment, Revised: November 19, 2010 The Dow Chemical Company
(9) California Office of Environmental Health Hazard Assessment, PROPOSED ACTION LEVEL FOR 2-CHLOROTOLUENE
(10) Delaware Health and Social Services, Division of Public Health, Revised: 01/2010
(11) USEPA, Envirofacts Master Chemical Integrator (EMCI), Scorecard, 4/10/2009

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EMSL Order #: **491800190**
EMSL Sample #: **491800190-2**
Customer ID: **SREC85**
Customer PO: **18013**

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**
Date Collected: **3/1/2018**
Date Received: **3/5/2018**

Project: **EPA 1595 Wynkoop St.**

Sample ID: 0392 - 5 Fl.

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	03/14/2018	KW	K15170.D	E0392	305 cc	1

NIOSH and OSHA Exposure Limit Comparisons

Target Compounds	Tox. Basis	CAS#	MW	Result ppbv	Q	Result ug/m3	NIOSH REL ug/m3	>	OSHA PEL ug/m3	>
Propylene	NC	115-07-1	42.08	ND		ND	N.E.		N.E.	
Freon 12(Dichlorodifluoromethane)	NC	75-71-8	120.90	ND		ND	4900000		4900000	
Freon 114(1,2-Dichlorotetrafluoroethan	--	76-14-2	170.90	ND		ND	7000000		7000000	
Chloromethane	NC	74-87-3	50.49	0.92		1.9	LFC		210000	
n-Butane	--	106-97-8	58.12	6.5		15	1900000		1900000	
Vinyl chloride	C	75-01-4	62.50	ND		ND	LFC		2600	
1,3-Butadiene	C	106-99-0	54.09	ND		ND	LFC		2200	
Bromomethane	NC	74-83-9	94.94	ND		ND	LFC		78000	
Chloroethane	NC	75-00-3	64.52	ND		ND	LFC		2600000	
Ethanol	--	64-17-5	46.07	35		66	1900000		1900000	
Bromoethene(Vinyl bromide)	C	593-60-2	106.90	ND		ND	LFC		N.E.	
Freon 11(Trichlorofluoromethane)	--	75-69-4	137.40	ND		ND	5600000		5600000	
Isopropyl alcohol(2-Propanol)	NC	67-63-0	60.10	3.2		7.7	980000		980000	
Freon 113(1,1,2-Trichlorotrifluoroethan	NC	76-13-1	187.40	ND		ND	7700000		7700000	
Acetone	NC	67-64-1	58.08	12		29	590000		2400000	
1,1-Dichloroethene	NC	75-35-4	96.94	ND		ND	790000		790000	
Acetonitrile	NC	75-05-8	41.00	27		46	34000		67000	
Tertiary butyl alcohol(TBA)	--	75-65-0	74.12	ND		ND	300000		300000	
Bromoethane(Ethyl bromide)	--	74-96-4	108.00	ND		ND	880000		880000	
3-Chloropropene(Allyl chloride)	C	107-05-1	76.53	ND		ND	3100		3100	
Carbon disulfide	NC	75-15-0	76.14	ND		ND	3100		62000	
Methylene chloride	C	75-09-2	84.94	ND		ND	LFC		87000	
Acrylonitrile	C	107-13-1	53.00	ND		ND	2200		4300	
Methyl-tert-butyl ether(MTBE)	C	1634-04-4	88.15	ND		ND	N.E.		N.E.	
trans-1,2-Dichloroethene	--	156-60-5	96.94	ND		ND	790000		790000	
n-Hexane	NC	110-54-3	86.17	ND		ND	180000		1800000	
1,1-Dichloroethane	C	75-34-3	98.96	ND		ND	400000		400000	
Vinyl acetate	NC	108-05-4	86.00	ND		ND	14000		N.E.	
2-Butanone(MEK)	NC	78-93-3	72.10	ND		ND	590000		590000	
cis-1,2-Dichloroethene	--	156-59-2	96.94	ND		ND	790000		790000	
Ethyl acetate	NC	141-78-6	88.10	1.1		4.1	1400000		1400000	
Chloroform	C	67-66-3	119.40	ND		ND	9800		240000	
Tetrahydrofuran	NC	109-99-9	72.11	ND		ND	590000		590000	
1,1,1-Trichloroethane	NC	71-55-6	133.40	ND		ND	1900000		1900000	
Cyclohexane	NC	110-82-7	84.16	ND		ND	1000000		1000000	
2,2,4-Trimethylpentane(Isooctane)	--	540-84-1	114.20	ND		ND	N.E.		N.E.	
Carbon tetrachloride	C	56-23-5	153.80	ND		ND	13000		63000	
n-Heptane	NC	142-82-5	100.20	ND		ND	350000		2000000	
1,2-Dichloroethane	C	107-06-2	98.96	ND		ND	4000		200000	
Benzene	C	71-43-2	78.11	ND		ND	320		3200	
Trichloroethene	C	79-01-6	131.40	ND		ND	130000		540000	
1,2-Dichloropropane	C	78-87-5	113.00	ND		ND	LFC		350000	
Methyl Methacrylate	NC	80-62-6	100.12	ND		ND	410000		410000	
Bromodichloromethane	C	75-27-4	163.80	ND		ND	N.E.		N.E.	

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EMSL Order #: **491800190**
EMSL Sample #: **491800190-2**
Customer ID: **SREC85**
Customer PO: **18013**

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**
Date Collected: **3/1/2018**
Date Received: **3/5/2018**

Project: **EPA 1595 Wynkoop St.**
Sample ID: 0392 - 5 Fl.

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	03/14/2018	KW	K15170.D	E0392	305 cc	1

NIOSH and OSHA Exposure Limit Comparisons

Target Compounds	Tox. Basis	CAS#	MW	Result ppbv	Q	Result ug/m3	NIOSH REL ug/m3	>	OSHA PEL ug/m3	>
1,4-Dioxane	C	123-91-1	88.12	ND		ND	3600		360000	
4-Methyl-2-pentanone(MIBK)	NC	108-10-1	100.20	ND		ND	200000		410000	
cis-1,3-Dichloropropene**	C	10061-01-5	111.00	ND		ND	4500		N.E.	
Toluene	NC	108-88-3	92.14	**0.69**		**2.6**	380000		750000	
trans-1,3-Dichloropropene**	C	10061-02-6	111.00	ND		ND	4500		N.E.	
1,1,2-Trichloroethane	C	79-00-5	133.40	ND		ND	55000		55000	
2-Hexanone(MBK)	NC	591-78-6	100.10	ND		ND	4100		410000	
Tetrachloroethene	C	127-18-4	165.80	ND		ND	LFC		680000	
Dibromochloromethane	--	124-48-1	208.30	ND		ND	N.E.		N.E.	
1,2-Dibromoethane	C	106-93-4	187.80	ND		ND	350		150000	
Chlorobenzene	NC	108-90-7	112.60	ND		ND	N.E.		350000	
Ethylbenzene	C	100-41-4	106.20	ND		ND	430000		430000	
Xylene (p,m)	NC	1330-20-7	106.20	ND		ND	430000		430000	
Xylene (Ortho)	NC	95-47-6	106.20	ND		ND	430000		430000	
Styrene	NC	100-42-5	104.10	ND		ND	210000		430000	
Isopropylbenzene (cumene)	NC	98-82-8	120.19	ND		ND	250000		250000	
Bromoform	C	75-25-2	252.80	ND		ND	5200		5200	
1,1,2,2-Tetrachloroethane	C	79-34-5	167.90	ND		ND	6900		34000	
4-Ethyltoluene	--	622-96-8	120.20	ND		ND	N.E.		N.E.	
1,3,5-Trimethylbenzene	NC	108-67-8	120.20	ND		ND	120000		120000	
2-Chlorotoluene	--	95-49-8	126.60	ND		ND	260000		N.E.	
1,2,4-Trimethylbenzene	NC	95-63-6	120.20	ND		ND	120000		120000	
1,3-Dichlorobenzene	--	541-73-1	147.00	ND		ND	N.E.		N.E.	
1,4-Dichlorobenzene	C	106-46-7	147.00	ND		ND	LFC		450000	
Benzyl chloride	C	100-44-7	126.00	ND		ND	5200		5200	
1,2-Dichlorobenzene	NC	95-50-1	147.00	ND		ND	300000		300000	
1,2,4-Trichlorobenzene	NC	120-82-1	181.50	ND		ND	37000		N.E.	
Hexachloro-1,3-butadiene	C	87-68-3	260.80	ND		ND	210		N.E.	
Naphthalene	C	91-20-3	128.17	ND		ND	52000		52000	

**The concentrations of each isomer should be added if multiple isomers are present and compared to the total screening level.

The > column is used to flag exceedences as marked

Exposure Limit Definitions
REL= Recommended Exposure Limit, PEL= Permissable Exposure Limit

Agency Definitions
NIOSH= The National Institute for Occupational Safety and Health

Reference
Occupational Safety and Health Administration (OSHA) General Industry Air Contaminants Standard (29 CFR 1910.1000)
Toxicity Class (EPA Regionional Screening Levels (RSL) Table, Nov 2017)
C= Carcinogenic
NC= Non-Carcinogenic

Compound Exposure Definitions
NE= No Limit Established
LFC= Lowest Feasible Concentration
NS= No Sscreening Value

Qualifier Definitions
ND = Non Detect
B = Compound also found in method blank.
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EMSL Order #: **491800190**
EMSL Sample #: **491800190-2**
Customer ID: **SREC85**
Customer PO: **18013**

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**
Date Collected: **3/1/2018**
Date Received: **3/5/2018**

Project: **EPA 1595 Wynkoop St.**
Sample ID: 0392 - 5 Fl.

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	03/14/2018	KW	K15170.D	E0392	305 cc	1

Possible Background Sources of Contaminants

Target Compounds	CAS#	Result ppbv	Q	Result ug/m3	Use and Possible Sources
Chloromethane	74-87-3	**0.92**		**1.9**	Most (99%) of the chloromethane in the environment comes from natural sources. Because chloromethane is made in the oceans by natural processes, it is present in air all over the world. In most areas, the outside air contains less than 1 part of chloromethane in a billion parts of air (ppb). In cities, human activities, mostly combustion and manufacturing, add to the chloromethane in the air, resulting in somewhat higher levels, up to 1 ppb. Cigarette smoke, polystyrene insulation, and aerosol propellants; home burning of wood, coal, or certain plastics; and chlorinated swimming pools.[4]
n-Butane	106-97-8	**6.5**		**15**	Aerosol spray products for some paints, cosmetics, automotive products, leather treatments, pesticides.[2]
Ethanol	64-17-5	**35**		**66**	Hand sanitizers, disinfecting wipes. Personal care products: nail polish, nail polish remover, colognes, perfumes, rubbing alcohol, hair spray. [2]
Isopropyl alcohol(2-Propanol)	67-63-0	**3.2**		**7.7**	Eye Glass Cleaners. Disinfecting wipes. Personal care products: nail polish, nail polish remover, colognes, perfumes, rubbing alcohol, hair spray.[2]
Acetone	67-64-1	**12**		**29**	Rubber cement, cleaning fluids, scented candles and nail polish remover.[1]
Acetonitrile	75-05-8	**27**		**46**	Predominantly used as a solvent in the manufacture of pharmaceuticals and in chemical laboratories for the detection of materials such as pesticide residues.[6]
Ethyl acetate	141-78-6	**1.1**		**4.1**	Personal care products: nail polish, nail polish remover, colognes, perfumes, rubbing alcohol, hair spray.[2]
Toluene	108-88-3	**0.69**		**2.6**	Toluene is produced in the process of making gasoline and other fuels from crude oil and making coke from coal. Will occur in gasoline exhaust. Toluene is used in making paints, paint thinners, fingernail polish, lacquers, adhesives, and rubber and in some printing and leather tanning processes.[4]

Qualifier Definitions
ND = Non Detect
B = Compound also found in method blank.
E= Estimated concentration exceeding upper calibration range.
D= Result reported from diluted analysis.

Sources References
(1) NJDEP "Common Household Sources of Background Indoor Air Contamination". June 26, 2012
(2) NYSDOH "Volatile Organic Compounds (VOCs) in Commonly Used Products", 2007
(3) EPA, Air & Radiation, TTN Web - Technology Transfer NetworkAir Toxics Web site, various years.
(4) Agency for Toxic Substances and Disease Registry (ATSDR). U.S. Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA. 1998.
(5) OFFICE OF POLLUTION PREVENTION AND TOXICS, U.S. ENVIRONMENTAL PROTECTION AGENCY, August 1994, EPA 749-F-94-012a
(6) U.S. Environmental Protection Agency, Office of Research and Development, Cincinnati, OH. 1985.
(7) World Health Organization,
(8) Product Safety Assessment, Revised: November 19, 2010 The Dow Chemical Company
(9) California Office of Environmental Health Hazard Assessment, PROPOSED ACTION LEVEL FOR 2-CHLOROTOLUENE
(10) Delaware Health and Social Services, Division of Public Health, Revised: 01/2010
(11) USEPA, Envirofacts Master Chemical Integrator (EMCI), Scorecard, 4/10/2009

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EMSL Order #: **491800190**
EMSL Sample #: **491800190-3**
Customer ID: **SREC85**
Customer PO: **18013**

Attn: **Alex Green**
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Phone: **303-297-1645**
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Date Collected: **3/1/2018**
Date Received: **3/5/2018**

Project: **EPA 1595 Wynkoop St.**

Sample ID: 0415 - 6 Fl.

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	03/14/2018	KW	K15171.D	E0415	312.5 cc	1

NIOSH and OSHA Exposure Limit Comparisons

Target Compounds	Tox. Basis	CAS#	MW	Result ppbv	Q	Result ug/m3	NIOSH REL ug/m3	>	OSHA PEL ug/m3	>
Propylene	NC	115-07-1	42.08	ND		ND	N.E.		N.E.	
Freon 12(Dichlorodifluoromethane)	NC	75-71-8	120.90	ND		ND	4900000		4900000	
Freon 114(1,2-Dichlorotetrafluoroethan	--	76-14-2	170.90	ND		ND	7000000		7000000	
Chloromethane	NC	74-87-3	50.49	ND		ND	LFC		210000	
n-Butane	--	106-97-8	58.12	6.9		16	1900000		1900000	
Vinyl chloride	C	75-01-4	62.50	ND		ND	LFC		2600	
1,3-Butadiene	C	106-99-0	54.09	ND		ND	LFC		2200	
Bromomethane	NC	74-83-9	94.94	ND		ND	LFC		78000	
Chloroethane	NC	75-00-3	64.52	ND		ND	LFC		2600000	
Ethanol	--	64-17-5	46.07	37		69	1900000		1900000	
Bromoethene(Vinyl bromide)	C	593-60-2	106.90	ND		ND	LFC		N.E.	
Freon 11(Trichlorofluoromethane)	--	75-69-4	137.40	ND		ND	5600000		5600000	
Isopropyl alcohol(2-Propanol)	NC	67-63-0	60.10	4.8		12	980000		980000	
Freon 113(1,1,2-Trichlorotrifluoroethan	NC	76-13-1	187.40	ND		ND	7700000		7700000	
Acetone	NC	67-64-1	58.08	13		30	590000		2400000	
1,1-Dichloroethene	NC	75-35-4	96.94	ND		ND	790000		790000	
Acetonitrile	NC	75-05-8	41.00	16		27	34000		67000	
Tertiary butyl alcohol(TBA)	--	75-65-0	74.12	ND		ND	300000		300000	
Bromoethane(Ethyl bromide)	--	74-96-4	108.00	ND		ND	880000		880000	
3-Chloropropene(Allyl chloride)	C	107-05-1	76.53	ND		ND	3100		3100	
Carbon disulfide	NC	75-15-0	76.14	ND		ND	3100		62000	
Methylene chloride	C	75-09-2	84.94	ND		ND	LFC		87000	
Acrylonitrile	C	107-13-1	53.00	ND		ND	2200		4300	
Methyl-tert-butyl ether(MTBE)	C	1634-04-4	88.15	ND		ND	N.E.		N.E.	
trans-1,2-Dichloroethene	--	156-60-5	96.94	ND		ND	790000		790000	
n-Hexane	NC	110-54-3	86.17	ND		ND	180000		1800000	
1,1-Dichloroethane	C	75-34-3	98.96	ND		ND	400000		400000	
Vinyl acetate	NC	108-05-4	86.00	ND		ND	14000		N.E.	
2-Butanone(MEK)	NC	78-93-3	72.10	ND		ND	590000		590000	
cis-1,2-Dichloroethene	--	156-59-2	96.94	ND		ND	790000		790000	
Ethyl acetate	NC	141-78-6	88.10	1.1		4.0	1400000		1400000	
Chloroform	C	67-66-3	119.40	ND		ND	9800		240000	
Tetrahydrofuran	NC	109-99-9	72.11	ND		ND	590000		590000	
1,1,1-Trichloroethane	NC	71-55-6	133.40	ND		ND	1900000		1900000	
Cyclohexane	NC	110-82-7	84.16	ND		ND	1000000		1000000	
2,2,4-Trimethylpentane(Isooctane)	--	540-84-1	114.20	ND		ND	N.E.		N.E.	
Carbon tetrachloride	C	56-23-5	153.80	ND		ND	13000		63000	
n-Heptane	NC	142-82-5	100.20	ND		ND	350000		2000000	
1,2-Dichloroethane	C	107-06-2	98.96	ND		ND	4000		200000	
Benzene	C	71-43-2	78.11	ND		ND	320		3200	
Trichloroethene	C	79-01-6	131.40	ND		ND	130000		540000	
1,2-Dichloropropane	C	78-87-5	113.00	ND		ND	LFC		350000	
Methyl Methacrylate	NC	80-62-6	100.12	ND		ND	410000		410000	
Bromodichloromethane	C	75-27-4	163.80	ND		ND	N.E.		N.E.	

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EMSL Order #: **491800190**
EMSL Sample #: **491800190-3**
Customer ID: **SREC85**
Customer PO: **18013**

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**
Date Collected: **3/1/2018**
Date Received: **3/5/2018**

Project: **EPA 1595 Wynkoop St.**
Sample ID: 0415 - 6 Fl.

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	03/14/2018	KW	K15171.D	E0415	312.5 cc	1

NIOSH and OSHA Exposure Limit Comparisons

Target Compounds	Tox. Basis	CAS#	MW	Result ppbv	Q	Result ug/m3	NIOSH REL ug/m3	>	OSHA PEL ug/m3	>
1,4-Dioxane	C	123-91-1	88.12	ND		ND	3600		360000	
4-Methyl-2-pentanone(MIBK)	NC	108-10-1	100.20	ND		ND	200000		410000	
cis-1,3-Dichloropropene**	C	10061-01-5	111.00	ND		ND	4500		N.E.	
Toluene	NC	108-88-3	92.14	**0.74**		**2.8**	380000		750000	
trans-1,3-Dichloropropene**	C	10061-02-6	111.00	ND		ND	4500		N.E.	
1,1,2-Trichloroethane	C	79-00-5	133.40	ND		ND	55000		55000	
2-Hexanone(MBK)	NC	591-78-6	100.10	ND		ND	4100		410000	
Tetrachloroethene	C	127-18-4	165.80	ND		ND	LFC		680000	
Dibromochloromethane	--	124-48-1	208.30	ND		ND	N.E.		N.E.	
1,2-Dibromoethane	C	106-93-4	187.80	ND		ND	350		150000	
Chlorobenzene	NC	108-90-7	112.60	ND		ND	N.E.		350000	
Ethylbenzene	C	100-41-4	106.20	ND		ND	430000		430000	
Xylene (p,m)	NC	1330-20-7	106.20	ND		ND	430000		430000	
Xylene (Ortho)	NC	95-47-6	106.20	ND		ND	430000		430000	
Styrene	NC	100-42-5	104.10	ND		ND	210000		430000	
Isopropylbenzene (cumene)	NC	98-82-8	120.19	ND		ND	250000		250000	
Bromoform	C	75-25-2	252.80	ND		ND	5200		5200	
1,1,2,2-Tetrachloroethane	C	79-34-5	167.90	ND		ND	6900		34000	
4-Ethyltoluene	--	622-96-8	120.20	ND		ND	N.E.		N.E.	
1,3,5-Trimethylbenzene	NC	108-67-8	120.20	ND		ND	120000		120000	
2-Chlorotoluene	--	95-49-8	126.60	ND		ND	260000		N.E.	
1,2,4-Trimethylbenzene	NC	95-63-6	120.20	ND		ND	120000		120000	
1,3-Dichlorobenzene	--	541-73-1	147.00	ND		ND	N.E.		N.E.	
1,4-Dichlorobenzene	C	106-46-7	147.00	ND		ND	LFC		450000	
Benzyl chloride	C	100-44-7	126.00	ND		ND	5200		5200	
1,2-Dichlorobenzene	NC	95-50-1	147.00	ND		ND	300000		300000	
1,2,4-Trichlorobenzene	NC	120-82-1	181.50	ND		ND	37000		N.E.	
Hexachloro-1,3-butadiene	C	87-68-3	260.80	ND		ND	210		N.E.	
Naphthalene	C	91-20-3	128.17	ND		ND	52000		52000	

**The concentrations of each isomer should be added if multiple isomers are present and compared to the total screening level.

The > column is used to flag exceedences as marked

Exposure Limit Definitions
REL= Recommended Exposure Limit, PEL= Permissable Exposure Limit

Agency Definitions
NIOSH= The National Institute for Occupational Safety and Health

Reference
Occupational Safety and Health Administration (OSHA) General Industry Air Contaminants Standard (29 CFR 1910.1000)
Toxicity Class (EPA Regionional Screening Levels (RSL) Table, Nov 2017)
C= Carcinogenic
NC= Non-Carcinogenic

Compound Exposure Definitions
NE= No Limit Established
LFC= Lowest Feasible Concentration
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Qualifier Definitions
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EMSL Order #: **491800190**
EMSL Sample #: **491800190-3**
Customer ID: **SREC85**
Customer PO: **18013**

Attn: **Alex Green**
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5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**
Date Collected: **3/1/2018**
Date Received: **3/5/2018**

Project: **EPA 1595 Wynkoop St.**
Sample ID: 0415 - 6 Fl.

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	03/14/2018	KW	K15171.D	E0415	312.5 cc	1

Possible Background Sources of Contaminants

Target Compounds	CAS#	Result ppbv	Q	Result ug/m3	Use and Possible Sources
n-Butane	106-97-8	**6.9**		**16**	Aerosol spray products for some paints, cosmetics, automotive products, leather treatments, pesticides.[2]
Ethanol	64-17-5	**37**		**69**	Hand sanitizers, disinfecting wipes. Personal care products: nail polish, nail polish remover, colognes, perfumes, rubbing alcohol, hair spray. [2]
Isopropyl alcohol(2-Propanol)	67-63-0	**4.8**		**12**	Eye Glass Cleaners. Disinfecting wipes. Personal care products: nail polish, nail polish remover, colognes, perfumes, rubbing alcohol, hair spray.[2]
Acetone	67-64-1	**13**		**30**	Rubber cement, cleaning fluids, scented candles and nail polish remover.[1]
Acetonitrile	75-05-8	**16**		**27**	Predominantly used as a solvent in the manufacture of pharmaceuticals and in chemical laboratories for the detection of materials such as pesticide residues.[6]
Ethyl acetate	141-78-6	**1.1**		**4.0**	Personal care products: nail polish, nail polish remover, colognes, perfumes, rubbing alcohol, hair spray.[2]
Toluene	108-88-3	**0.74**		**2.8**	Toluene is produced in the process of making gasoline and other fuels from crude oil and making coke from coal. Will occur in gasoline exhaust. Toluene is used in making paints, paint thinners, fingernail polish, lacquers, adhesives, and rubber and in some printing and leather tanning processes.[4]

Qualifier Definitions
ND = Non Detect
B = Compound also found in method blank.
E= Estimated concentration exceeding upper calibration range.
D= Result reported from diluted analysis.

Sources References
(1) NJDEP "Common Household Sources of Background Indoor Air Contamination". June 26, 2012
(2) NYSDOH "Volatile Organic Compounds (VOCs) in Commonly Used Products", 2007
(3) EPA, Air & Radiation, TTN Web - Technology Transfer NetworkAir Toxics Web site, various years.
(4) Agency for Toxic Substances and Disease Registry (ATSDR). U.S. Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA. 1998.
(5) OFFICE OF POLLUTION PREVENTION AND TOXICS, U.S. ENVIRONMENTAL PROTECTION AGENCY, August 1994, EPA 749-F-94-012a
(6) U.S. Environmental Protection Agency, Office of Research and Development, Cincinnati, OH. 1985.
(7) World Health Organization,
(8) Product Safety Assessment, Revised: November 19, 2010 The Dow Chemical Company
(9) California Office of Environmental Health Hazard Assessment, PROPOSED ACTION LEVEL FOR 2-CHLOROTOLUENE
(10) Delaware Health and Social Services, Division of Public Health, Revised: 01/2010
(11) USEPA, Envirofacts Master Chemical Integrator (EMCI), Scorecard, 4/10/2009

EMSL Analytical
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856)858-4800 / (856)858-4571
http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491800190**
EMSL Sample #: **491800190-4**
Customer ID: **SREC85**
Customer PO: **18013**

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**
Date Collected: **3/1/2018**
Date Received: **3/5/2018**

Project: **EPA 1595 Wynkoop St.**

Sample ID: 15341 - 7 Fl.

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	03/14/2018	KW	K15172.D	E015341	305 cc	1

NIOSH and OSHA Exposure Limit Comparisons

Target Compounds	Tox. Basis	CAS#	MW	Result ppbv	Q	Result ug/m3	NIOSH REL ug/m3	>	OSHA PEL ug/m3	>
Propylene	NC	115-07-1	42.08	ND		ND	N.E.		N.E.	
Freon 12(Dichlorodifluoromethane)	NC	75-71-8	120.90	ND		ND	4900000		4900000	
Freon 114(1,2-Dichlorotetrafluoroethan	--	76-14-2	170.90	ND		ND	7000000		7000000	
Chloromethane	NC	74-87-3	50.49	**0.82**		**1.7**	LFC		210000	
n-Butane	--	106-97-8	58.12	**5.8**		**14**	1900000		1900000	
Vinyl chloride	C	75-01-4	62.50	ND		ND	LFC		2600	
1,3-Butadiene	C	106-99-0	54.09	ND		ND	LFC		2200	
Bromomethane	NC	74-83-9	94.94	ND		ND	LFC		78000	
Chloroethane	NC	75-00-3	64.52	ND		ND	LFC		2600000	
Ethanol	--	64-17-5	46.07	**34**		**65**	1900000		1900000	
Bromoethene(Vinyl bromide)	C	593-60-2	106.90	ND		ND	LFC		N.E.	
Freon 11(Trichlorofluoromethane)	--	75-69-4	137.40	ND		ND	5600000		5600000	
Isopropyl alcohol(2-Propanol)	NC	67-63-0	60.10	**4.0**		**10**	980000		980000	
Freon 113(1,1,2-Trichlorotrifluoroethan	NC	76-13-1	187.40	ND		ND	7700000		7700000	
Acetone	NC	67-64-1	58.08	**7.3**		**17**	590000		2400000	
1,1-Dichloroethene	NC	75-35-4	96.94	ND		ND	790000		790000	
Acetonitrile	NC	75-05-8	41.00	**2.5**		**4.2**	34000		67000	
Tertiary butyl alcohol(TBA)	--	75-65-0	74.12	ND		ND	300000		300000	
Bromoethane(Ethyl bromide)	--	74-96-4	108.00	ND		ND	880000		880000	
3-Chloropropene(Allyl chloride)	C	107-05-1	76.53	ND		ND	3100		3100	
Carbon disulfide	NC	75-15-0	76.14	ND		ND	3100		62000	
Methylene chloride	C	75-09-2	84.94	ND		ND	LFC		87000	
Acrylonitrile	C	107-13-1	53.00	ND		ND	2200		4300	
Methyl-tert-butyl ether(MTBE)	C	1634-04-4	88.15	ND		ND	N.E.		N.E.	
trans-1,2-Dichloroethene	--	156-60-5	96.94	ND		ND	790000		790000	
n-Hexane	NC	110-54-3	86.17	ND		ND	180000		1800000	
1,1-Dichloroethane	C	75-34-3	98.96	ND		ND	400000		400000	
Vinyl acetate	NC	108-05-4	86.00	ND		ND	14000		N.E.	
2-Butanone(MEK)	NC	78-93-3	72.10	**0.62**		**1.8**	590000		590000	
cis-1,2-Dichloroethene	--	156-59-2	96.94	ND		ND	790000		790000	
Ethyl acetate	NC	141-78-6	88.10	**1.1**		**4.0**	1400000		1400000	
Chloroform	C	67-66-3	119.40	ND		ND	9800		240000	
Tetrahydrofuran	NC	109-99-9	72.11	ND		ND	590000		590000	
1,1,1-Trichloroethane	NC	71-55-6	133.40	ND		ND	1900000		1900000	
Cyclohexane	NC	110-82-7	84.16	**0.66**		**2.3**	1000000		1000000	
2,2,4-Trimethylpentane(Isooctane)	--	540-84-1	114.20	ND		ND	N.E.		N.E.	
Carbon tetrachloride	C	56-23-5	153.80	ND		ND	13000		63000	
n-Heptane	NC	142-82-5	100.20	ND		ND	350000		2000000	
1,2-Dichloroethane	C	107-06-2	98.96	ND		ND	4000		200000	
Benzene	C	71-43-2	78.11	ND		ND	320		3200	
Trichloroethene	C	79-01-6	131.40	ND		ND	130000		540000	
1,2-Dichloropropane	C	78-87-5	113.00	ND		ND	LFC		350000	
Methyl Methacrylate	NC	80-62-6	100.12	ND		ND	410000		410000	
Bromodichloromethane	C	75-27-4	163.80	ND		ND	N.E.		N.E.	

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EMSL Order #: **491800190**
EMSL Sample #: **491800190-4**
Customer ID: **SREC85**
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Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**
Date Collected: **3/1/2018**
Date Received: **3/5/2018**

Project: **EPA 1595 Wynkoop St.**
Sample ID: 15341 - 7 Fl.

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	03/14/2018	KW	K15172.D	E015341	305 cc	1

NIOSH and OSHA Exposure Limit Comparisons

Target Compounds	Tox. Basis	CAS#	MW	Result ppbv	Q	Result ug/m3	NIOSH REL ug/m3	>	OSHA PEL ug/m3	>
1,4-Dioxane	C	123-91-1	88.12	ND		ND	3600		360000	
4-Methyl-2-pentanone(MIBK)	NC	108-10-1	100.20	ND		ND	200000		410000	
cis-1,3-Dichloropropene**	C	10061-01-5	111.00	ND		ND	4500		N.E.	
Toluene	NC	108-88-3	92.14	**1.2**		**4.5**	380000		750000	
trans-1,3-Dichloropropene**	C	10061-02-6	111.00	ND		ND	4500		N.E.	
1,1,2-Trichloroethane	C	79-00-5	133.40	ND		ND	55000		55000	
2-Hexanone(MBK)	NC	591-78-6	100.10	ND		ND	4100		410000	
Tetrachloroethene	C	127-18-4	165.80	ND		ND	LFC		680000	
Dibromochloromethane	--	124-48-1	208.30	ND		ND	N.E.		N.E.	
1,2-Dibromoethane	C	106-93-4	187.80	ND		ND	350		150000	
Chlorobenzene	NC	108-90-7	112.60	ND		ND	N.E.		350000	
Ethylbenzene	C	100-41-4	106.20	ND		ND	430000		430000	
Xylene (p,m)	NC	1330-20-7	106.20	ND		ND	430000		430000	
Xylene (Ortho)	NC	95-47-6	106.20	ND		ND	430000		430000	
Styrene	NC	100-42-5	104.10	ND		ND	210000		430000	
Isopropylbenzene (cumene)	NC	98-82-8	120.19	ND		ND	250000		250000	
Bromoform	C	75-25-2	252.80	ND		ND	5200		5200	
1,1,2,2-Tetrachloroethane	C	79-34-5	167.90	ND		ND	6900		34000	
4-Ethyltoluene	--	622-96-8	120.20	ND		ND	N.E.		N.E.	
1,3,5-Trimethylbenzene	NC	108-67-8	120.20	ND		ND	120000		120000	
2-Chlorotoluene	--	95-49-8	126.60	ND		ND	260000		N.E.	
1,2,4-Trimethylbenzene	NC	95-63-6	120.20	ND		ND	120000		120000	
1,3-Dichlorobenzene	--	541-73-1	147.00	ND		ND	N.E.		N.E.	
1,4-Dichlorobenzene	C	106-46-7	147.00	ND		ND	LFC		450000	
Benzyl chloride	C	100-44-7	126.00	ND		ND	5200		5200	
1,2-Dichlorobenzene	NC	95-50-1	147.00	ND		ND	300000		300000	
1,2,4-Trichlorobenzene	NC	120-82-1	181.50	ND		ND	37000		N.E.	
Hexachloro-1,3-butadiene	C	87-68-3	260.80	ND		ND	210		N.E.	
Naphthalene	C	91-20-3	128.17	ND		ND	52000		52000	

**The concentrations of each isomer should be added if multiple isomers are present and compared to the total screening level.

The > column is used to flag exceedences as marked

Exposure Limit Definitions
REL= Recommended Exposure Limit, PEL= Permissable Exposure Limit

Agency Definitions
NIOSH= The National Institute for Occupational Safety and Health

Reference
Occupational Safety and Health Administration (OSHA) General Industry Air Contaminants Standard (29 CFR 1910.1000)
Toxicity Class (EPA Regionional Screening Levels (RSL) Table, Nov 2017)
C= Carcinogenic
NC= Non-Carcinogenic

Compound Exposure Definitions
NE= No Limit Established
LFC= Lowest Feasible Concentration
NS= No Sscreening Value

Qualifier Definitions
ND = Non Detect
B = Compound also found in method blank.
E= Estimated concentration exceeding upper calibration range.
D= Result reported from diluted analysis.

EMSL Analytical
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EMSL Order #: **491800190**
EMSL Sample #: **491800190-4**
Customer ID: **SREC85**
Customer PO: **18013**

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**
Date Collected: **3/1/2018**
Date Received: **3/5/2018**

Project: **EPA 1595 Wynkoop St.**

Sample ID: 15341 - 7 Fl.

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	03/14/2018	KW	K15172.D	E015341	305 cc	1

Possible Background Sources of Contaminants

Target Compounds	CAS#	Result ppbv	Q	Result ug/m3	Use and Possible Sources
n-Butane	106-97-8	**5.8**		**14**	Aerosol spray products for some paints, cosmetics, automotive products, leather treatments, pesticides.[2]
Ethanol	64-17-5	**34**		**65**	Hand sanitizers, disinfecting wipes. Personal care products: nail polish, nail polish remover, colognes, perfumes, rubbing alcohol, hair spray. [2]
Isopropyl alcohol(2-Propanol)	67-63-0	**4.0**		**10**	Eye Glass Cleaners. Disinfecting wipes. Personal care products: nail polish, nail polish remover, colognes, perfumes, rubbing alcohol, hair spray.[2]
Acetone	67-64-1	**7.3**		**17**	Rubber cement, cleaning fluids, scented candles and nail polish remover.[1]
Acetonitrile	75-05-8	**2.5**		**4.2**	Predominantly used as a solvent in the manufacture of pharmaceuticals and in chemical laboratories for the detection of materials such as pesticide residues.[6]
Ethyl acetate	141-78-6	**1.1**		**4.0**	Personal care products: nail polish, nail polish remover, colognes, perfumes, rubbing alcohol, hair spray.[2]
Toluene	108-88-3	**1.2**		**4.5**	Toluene is produced in the process of making gasoline and other fuels from crude oil and making coke from coal. Will occur in gasoline exhaust. Toluene is used in making paints, paint thinners, fingernail polish, lacquers, adhesives, and rubber and in some printing and leather tanning processes.[4]

Qualifier Definitions
ND = Non Detect
B = Compound also found in method blank.
E= Estimated concentration exceeding upper calibration range.
D= Result reported from diluted analysis.

Sources References
(1) NJDEP "Common Household Sources of Background Indoor Air Contamination". June 26, 2012
(2) NYSDOH "Volatile Organic Compounds (VOCs) in Commonly Used Products", 2007
(3) EPA, Air & Radiation, TTN Web - Technology Transfer NetworkAir Toxics Web site, various years.
(4) Agency for Toxic Substances and Disease Registry (ATSDR). U.S. Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA. 1998.
(5) OFFICE OF POLLUTION PREVENTION AND TOXICS, U.S. ENVIRONMENTAL PROTECTION AGENCY, August 1994, EPA 749-F-94-012a
(6) U.S. Environmental Protection Agency, Office of Research and Development, Cincinnati, OH. 1985.
(7) World Health Organization,
(8) Product Safety Assessment, Revised: November 19, 2010 The Dow Chemical Company
(9) California Office of Environmental Health Hazard Assessment, PROPOSED ACTION LEVEL FOR 2-CHLOROTOLUENE
(10) Delaware Health and Social Services, Division of Public Health, Revised: 01/2010
(11) USEPA, Envirofacts Master Chemical Integrator (EMCI), Scorecard, 4/10/2009

USEPA TO-15
External Chain of Custody/ Field Test Data Sheet

EMSL ANALYTICAL, INC.

EMSL Order Number (Lab Use Only): 491800190

EMSL Analytical, Inc.
200 Route 130 North
Cinnaminson, NJ 08077
Ph. (800) 220-3675
Fax (856) 786-0327

Report To Contact Name:	Bill To Company:	Sampled By (Sign):
Company Name: S&R ENVIRONMENTAL	Attention To: SAME	Sampled By (Name): Alex Green
Address 1: 5801 Lowell St	Address 1:	Total # of Samples: 4
Address 2: Denver, CO 80216	Address 2:	Date Shipped: 3/2/18
Phone No.: Fax:	Phone No.: Fax:	Sample Collection Zip Code: 80202
Email Results To: Alex@srenvironmental consulting.com	Project Name: EPA 1595 Wynkoop St	Purchase Order: 018013

Turnaround Time (In Business Days): ☒ ~~10~~ Day Standard ☐ 5 Day ☐ 4 Day ☐ 3 Day ☐ 2 Day ☐ 1 Day ☐ Other

Reporting Format: ☒ ~~Results Only~~ (Standard Lab Report) ☐ Full Deliverables (Surcharge may apply) ☐ Other

EMSL Sample Identifier	Client Field Sample Identification	Field Use - All Information Required! Sampling Start Information Barometric Pres. ("Hg): Start Date	Time (24 hr clock)	Canister Pressure ("Hg)	Interior Temp. (F)	Sampling Stop Information Barometric Pres. ("Hg): Stop Date	Time (24 hr clock)	Canister Pressure ("Hg)	Interior Temp. (F)	Lab Use Only Canister Information: Canister ID	Size (L)	Can Cert Batch ID	Outgoing Pressure ("Hg)	Incoming Pressure ("Hg)	Flow Controller: Reg. ID	Cal Flow (ml/min)	Analysis: USEPA TO-15	NJDEP LLTO-15	LIBRARY SEARCH	Other (Specify)	Matrix: Indoor/ Ambient Air	Soil Gas	Landfill/ Vent
	0270-2FL	3-1-18	10:15	30		3-1-18	14:15	7		E 0270	6	C3563	-30.0		3652	21.2	X				X		
	0392-5FL	2-28-18	10:50	25		2-28-18	14:45	0		0392	↓	↓	↓		3708	↓	X				X		
	0415-6FL	2-28-18	10:45	25		2-28-18	14:40	4		0415	↓	↓	↓		3768	↓	X				X		
	15341-7FL	3-1-18	10:10	28		3-1-18	14:10	4		↓ 15341	↓	↓	↓		1884	↓	X				X		

Comments: 0270-2FL USED REG ID - 3768 0392-5FL USED REG 3652
15341-7FL USED REG ID - 3708 0415-6FL USED REG 1884

Lab Canister Certification
Analyst Signature (TO-15):

Relinquished by:	Date/ Time	Received by:	Date/ Time	Seal #/Intact	Reason for Exchange (circle appropriate)
Carly Peters	2/23/18 1629	ADa	2/27/18	320-321	Shipping Courier Receiving Sampling Other:
ADa	3/2/18 14:30	AR FX	3/5/18	0940 313	Shipping Courier Receiving Sampling Other:
Amandeep Kahn	3/5/18 @ 940h				Shipping Courier Receiving Sampling Other:
					Shipping Courier Receiving Sampling Other:
					Shipping Courier Receiving Sampling Other:

RECEIVED EMSL CINNAMINSON NJ MAR -5 A 9:10

795435930414

OrderID: 491800190

Page 1 Of 2

OrderID: 49182

-491800190

TO-FM-12 Sample Information
Revision 9
Effective Date: January 22, 2018

RECEIVED
EMSL
CINNAMINSON, N.J.
2018 MAR -5 A 9:42

TO-15 Sample Information

Please fill out this worksheet in addition to the Chain of Custody form. This information helps us to best analyze your samples, achieve requested TAT, and provide you with helpful interpretation information.

Company:	S&R Environmental Consulting
Contact Person:	
Name:	Alex Green
E-mail:	alex@srenvironmentalconsulting.com
Additional E-mails:	/ / / /
Telephone #:	303-297-1645

Library Search requested: [ ] YES [X] NO

A library search (*aka Tentatively Identified Compounds*) will identify up to 20 of the largest, non-target peaks that are not part of the standard TO-15 list of 74 compounds. If you are performing an Indoor Air Quality or odor investigation, the library search is recommended to provide you with all available information for your sample.

Sample Type:

[X] Indoor Air Quality (Home/Office)
[ ] IAQ (Industrial)
[ ] Other:
[ ] Soil Gas/Sub Slab

Sample Description: _____

PLEASE NOTE: The result forms we provide will not indicate whether your results have exceeded any Exposure Limit criteria established by any regulatory agency. If you would like that information, please check off below which regulatory comparison forms you would like to receive.

[X] OSHA PELs/NIOSH RELs	*combined form*		[X] Potential Sources of Compounds found in your IAQ sample		
[ ] EPA RSLs - *11/2017*	Residential	Industrial	[X] TVOC (Library Search Required for this format)		
[ ] NJ DEP *1/2018* - Circle one:	VI-Indoor AQ	VI-Soil Gas	[ ] Ohio *4/2013* -Circle one:	Residential	Commercial
[ ] NC DENR *4/2014* -Circle one:	Residential	Non-residential	[ ] Indiana Dept Env Mgmt Screeening Levels *3/2016*		
[ ] PA DEP - *11/2016*	Indoor Air		[ ] Vermont DEP IROCP *4/2012* (soil gas only)		
[ ] PA DEP- 11/2016: Sub Slab Soil Gas OR Near Source Soil Gas			[ ] California OEHHA *2/2012*		
[ ] CA HHSL *11/2004* -Circle one:	Indoor Air	Soil Gas	[ ] Other; these are the compounds I want reported:		

Please note: There is an additional charge for any of the tests below. **USEPA TO-3 AND ASTM 5504 analyses can be performed from your canister at the Cinnaminson NJ Laboratory.**

US EPA TO-3 via GC/FID **(choose one below):**

[ ] C_1-C_6 hydrocarbons
[ ] Methane only

ASTM-D5504 *via GC/SCD* **(choose one below):**

[ ] Sulfur Scan (H_2S, COS, MeSH, EtSH, DMS)
[ ] H_2S only

***Note** : Hold time for sulfur gases is 1 day from collection. Please schedule your sample collection so samples are received in the lab prior to noon on Friday. Analysis performed out of hold time will have a notation in the report.*

We can provide the following CMS tests from your canisters at the Cinnaminson and Huntington Beach laboratories. Please note these tests are to be used for IAQ/Screening purposes ONLY. EMSL recommends alternate field sampling techniques for these parameters (with the exception of water vapor); please contact your sales rep for the proper media. Please note: There is an additional charge for any of the tests below.

Dräger CMS Analyzer:

[X] CO [X] CO_2 [ ] NH_3 [ ] $O2$ [ ] Water Vapor

Sample Retention Policy: All canisters are guaranteed to be retained for one day after results are reported. Please review your results promptly to ensure your project scope is fully addressed. Cans may be retained for a longer period of time, but arrangements to hold your cans must be made through your customer account representative quickly. Thank you.

Wisconsin Occupational Health Laboratory
WISCONSIN STATE LABORATORY OF HYGIENE
UNIVERSITY OF WISCONSIN-MADISON

2601 Agriculture Drive
Madison, WI 53718
Phone: (800) 446-0403
Fax: (608) 224-6213
Web: wohl-lab.org

ALEX GREEN

S & R ENVIRONMENTAL CONSULTING

STE 200

5801 LOGAN ST

DENVER, CO 80216

Lab Workorder ID	369237
Visit/Project ID	1595 WYNKOOP ST EPA
PO	018013
Received	March 5, 2018
Reported	March 12, 2018
Report ID	5065532
Previous Report IDs	

Dear ALEX GREEN:

Enclosed are the analytical results for sample(s) received by the laboratory on March 5, 2018. All samples received were acceptable, results were not blank corrected, and all quality control met laboratory standards unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact the lab.

Sincerely,

Steve Strebel, Laboratory Director

Analyst - JOHN GLOWACKI

Wisconsin Occupational Health Laboratory
WISCONSIN STATE LABORATORY OF HYGIENE
UNIVERSITY OF WISCONSIN-MADISON

2601 Agriculture Drive
Madison, WI 53718
Phone: (800) 446-0403
Fax: (608) 224-6213
Web: www.wohl-lab.org

Final Report

Lab ID: **369237001** Sample ID: **CAP-05** Media: **OVS-7 TUBE**
Sampling Date: **2/28/2018** Matrix: **Air** Sampled Time:

Analyte	Method	Analysis Date	Air Volume	Reporting Limit	RESULT Front	Rear	Total	Air Concentration	TWA
Caprolactam (Dust and Vapor)	OSHA PV2012	3/8/2018	105 L	1.5 ug	<1.5 ug	<1.5 ug	<1.5 ug	<0.014 mg/m3	

Lab ID: **369237002** Sample ID: **CAP-06** Media: **OVS-7 TUBE**
Sampling Date: **2/28/2018** Matrix: **Air** Sampled Time:

Analyte	Method	Analysis Date	Air Volume	Reporting Limit	RESULT Front	Rear	Total	Air Concentration	TWA
Caprolactam (Dust and Vapor)	OSHA PV2012	3/8/2018	109 L	1.5 ug	<1.5 ug	<1.5 ug	<1.5 ug	<0.014 mg/m3	

Lab ID: **369237003** Sample ID: **CAP-07** Media: **OVS-7 TUBE**
Sampling Date: **3/1/2018** Matrix: **Air** Sampled Time:

Analyte	Method	Analysis Date	Air Volume	Reporting Limit	RESULT Front	Rear	Total	Air Concentration	TWA
Caprolactam (Dust and Vapor)	OSHA PV2012	3/8/2018	107 L	1.5 ug	<1.5 ug	<1.5 ug	<1.5 ug	<0.014 mg/m3	

Lab ID: **369237004** Sample ID: **CAP-02** Media: **OVS-7 TUBE**
Sampling Date: **3/1/2018** Matrix: **Air** Sampled Time:

Analyte	Method	Analysis Date	Air Volume	Reporting Limit	RESULT Front	Rear	Total	Air Concentration	TWA
Caprolactam (Dust and Vapor)	OSHA PV2012	3/8/2018	101 L	1.5 ug	<1.5 ug	<1.5 ug	<1.5 ug	<0.015 mg/m3	

Wisconsin Occupational Health Laboratory
WISCONSIN STATE LABORATORY OF HYGIENE
UNIVERSITY OF WISCONSIN-MADISON

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Madison, WI 53718
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Fax: (608) 224-6213
Web: www.wohl-lab.org

Final Report

Abbreviations:

mg = milligrams	ppm or ppmv = parts per million	/m3 = per cubic meter
ug = micrograms	ppb or ppbv = parts per billion	/ft2 = per square foot
ng = nanograms	EU = Endotoxin Units	fibers/cc = fibers per cubic centimeter

< Less Than. The analyte, if present, is at a level too low to be accurately quantitated by the method used

End of Analytical Report

The results in this report apply only to the samples, specifically listed above, and tested at the Wisconsin Occupational Health Laboratory

EMSL Analytical - Industrial Hygiene
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (800) 220-3675 /
http://www.EMSL.com IndustrialHygienelab@emsl.com

EMSL Order:	281801953
CustomerID:	SREC85
CustomerPO:	018013
ProjectID:	

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone:	(303) 297-1645
Fax:	(303) 297-1646
Received:	05/01/18 10:40 AM
Analysis Date:	5/3/2018
Collected:	4/29/2018

Project: **EPA - Floor 4 - Clearance**

Test Report: PM10 Analysis of Particulate Matter Performed by EPA Reference Method 40 CFR, Chapter I, Part 50, App. J

Sample	*Location*	*Volume (L)*	*Initial Weight (mg)*	*Final Weight (mg)*	*Sample Weight (mg)*	*Concentration (µg/m³)*	*Reporting Limit (µg/m³)*	*Notes*
4-CL-PM10	4th Floor	2472	55.105	55.618	0.51	210	0.81	
281801953-0001								

Notes: Discernable field blank not submitted with samples.
Results are not field blank corrected.

Analyst(s)

Vincent Kurp (1)

Scott Van Etten, CIH, Laboratory Manager
or other approved signatory

Initial report from 05/03/2018 10:40:29

THIS IS THE LAST PAGE OF THE REPORT.

EMSL ANALYTICAL, INC.
LABORATORY · PRODUCTS · TRAINING

Industrial Hygiene Chain of Custody

EMSL Order Number (Lab Use Only):
-281801953

EMSL ANALYTICAL, INC.
200 ROUTE 130 NORTH
CINNAMINSON, NJ 08077
PHONE: (800) 220-3675
FAX: (856) 858-3502

OrderID: 281801953

Report To Contact Name: Alex Green		**Bill To Company:** SAME	**Client ID #:**
Company Name: S&R Environmental Consulting		**Attention To:**	
Street: 5801 Logan St. #200		**Street:**	
City: Denver	**State/Province:** CO	**Zip/Postal Code:** 80216	**City:**	**State/Province:**	**Zip/Postal Code:**
Phone: 307-548-1175 **Fax:**			**Phone:**	**Fax:**
Project Name: EPA - Floor 4 - Clearance			**Email Results To:** alex@srenvironmentalconsulting.com	**U.S. State where Samples Collected:** CO
# Samples in Shipment: 3	**Date of Shipment:** 4/29/18	**Purchase Order:** 018013	**Sampled By (Signature):**	

Turnaround Time (TAT) – Please Check: If No Selection Made, Standard 2 Week TAT Will Apply

☐ 2 Week ☐ 1 Week ☐ 4 Day ☐ 3 Day ☒ 2 Day ☐ 1 Day ☐ Other (Call Lab)

Media Type: Various
Manufacturer/Part #: **Lot #:**

Client Sample ID	Location/Description	Analyte / Method	Media	Flow (lpm)	Sample Time On	Sample Time Off	Volume / Area	Sample Type	Sample Date	Comments
4-CL-PM10	4th Floor	EPA IP-10A	37 mm filter				2472 L	☒ Area ☐ Personal	4/29/18	
4-CL-4PCH	↓	OSHA-CS1	Sorbent tube				24 L	☒ Area ☐ Personal	↓	
4-CL-FORM	↓	NIOSH 2016	"				24 L	☒ Area ☐ Personal	↓	
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		

RECEIVED
EMSL
CINNAMINSON, N.J.
2018 MAY -1 A 10:40

Note: Most NIOSH and OSHA methods require field blanks. It is the IH field sampler's responsibility to submit the proper number of field blanks and duplicates.

Released By	Date	Received By	Date
	4/29/18	Bob	5/1/18 1040

Comments: *split*

EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077
Phone/Fax: (800) 220-3675 /
http://www.EMSL.com / IndustrialHygienelab@emsl.com

EMSL Order ID:	281801956
Customer ID:	SREC85
Customer PO:	018013
Project ID:	

Attn: Alex Green
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: (303) 297-1645
Fax: (303) 297-1646
Collected:
Received: 5/01/2018
Analyzed: 5/01/2018

Proj: EPA - Floor 4, Clearance

Test Report:Formaldehyde Analysis by HPLC of Solid Sorbent Tubes via NIOSH 2016, Issue 2, 3/15/03 modified

Sample ID	Identification	Volume	Sample Weight	Sample Concentration		Reporting Limit
4-CL-FORM 281801956-0001	Floor 4 Clearance	24 L	0.051 µg	0.0021 mg/m³	0.0017 ppm	0.0021 mg/m³
Media Blank		N/A	<0.050 µg	<0.050 µg	N/A	N/A

N/A = Not Applicable

Analyst(s)
Thomas Cancglin

Scott Van Etten, CIH, Laboratory Manager

Any questions please contact Scott VanEtten.

Initial report from: 05/03/2018 15:36:01

1. Samples were received in acceptable condition unless otherwise noted.
2. These results relate only to the samples tested.
3. Sample results are blank corrected. Reporting Limits for samples without volumes, such as Field Blanks, are 0.050 ug.
4. A discernable Field Blank was submitted if listed above as a discrete sample.

Samples analyzed by EMSL Analytical - Industrial Hygiene Cinnaminson, NJ AIHA-LAP, LLC--IHLAP Accred. Lab 100194

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Industrial Hygiene Chain of Custody

EMSL Order Number (Lab Use Only): 281801956

EMSL ANALYTICAL, INC.
200 ROUTE 130 NORTH
CINNAMINSON, NJ 08077
PHONE: (800) 220-3675
FAX: (856) 858-3502

Report To Contact Name: Alex Green	**Bill To Company:** SAME	**Client ID #:**
Company Name: S&R Environmental Consulting	**Attention To:**	
Street: 5801 Logan St. #200	**Street:**	
City: Denver **State/Province:** CO **Zip/Postal Code:** 80216	**City:** **State/Province:** **Zip/Postal Code:**	
Phone : 307-548-1175 **Fax :**	**Phone:** **Fax:**	
Project Name: EPA - Floor 4 - Clearance	**Email Results To:** alex@sienvironmentalconsulting.com	**U.S. State where Samples Collected:** CO
# Samples in Shipment: 3 **Date of Shipment:** 4/29/18	**Purchase Order:** 018013 **Sampled By (Signature):**	

Turnaround Time (TAT) – Please Check: If No Selection Made, Standard 2 Week TAT Will Apply

☐ 2 Week ☐ 1 Week ☐ 4 Day ☐ 3 Day ☒ 2 Day ☐ 1 Day ☐ Other (Call Lab)

Media Type: Various **Manufacturer/Part #:** **Lot #:**

Client Sample ID	Location/Description	Analyte / Method	Media	Flow (lpm)	Sample Time On	Sample Time Off	Volume / Area	Sample Type	Sample Date	Comments
4-CL-PM10	4th Floor	EPA IP-10A	37 mm filter				2472 L	☒ Area ☐ Personal	4/29/18	
4-CL-4PCH	↓	OSHA-CSI	Sorbent tube				24 L	☒ Area ☐ Personal	↓	
4-CL-FORM	↓	NIOSH 2016	"				24 L	☒ Area ☐ Personal	↓	
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		

Note: Most NIOSH and OSHA methods require field blanks. It is the IH field sampler's responsibility to submit the proper number of field blanks and duplicates.

Released By	Date	Received By	Date
	4/29/18	JP.	5/1/18 9:30a

Comments: *split*

EMSL Analytical, Inc. 200 Route 130 North, Cinnaminson, NJ 08077

Order ID: 281801958

Attn:	Alex Green S&R Environmental Consulting, Inc 5801 Logan Street, #200 Denver, CO 80216	Customer ID: Customer PO: Date Received:	SREC85 018013 05/01/2018
Project: Report Date:	**EPA – Floor 4, Clearance** 05/03/2018	EMSL Project ID: Date Analyzed:	 05/01/2018

Test Report – 4-Phenylcyclohexene Analysis by GC/FID via Modified OSHA CSI Method

Sample ID	Identification	Sample Volume (L)	Sample Weight (µg)	Sample Conc. (µg/m^3)	Reporting Limit (µg/m^3)
281801958-0001	4-CL-4PCH	24	<0.030	<1.3	<1.3
Desorption Blank	-	0	<0.030	ND	NA

Notes:

1. Samples were received in acceptable condition unless otherwise noted.
2. These results relate only to the samples tested.
3. Sample results are not blank corrected unless otherwise noted.
4. Discernable field blank(s) submitted with samples if reported above.

TC/VK/VMD
Analyst

Scott VanEtten, CIH- Lab Manager
Or other approved signatory

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Industrial Hygiene Chain of Custody

EMSL Order Number (Lab Use Only): 281801958

EMSL ANALYTICAL, INC.
200 ROUTE 130 NORTH
CINNAMINSON, NJ 08077
PHONE: (800) 220-3675
FAX: (856) 858-3502

Report To Contact Name: Alex Green	Bill To Company: SAME	Client ID #:
Company Name: S&R Environmental Consulting	Attention To:	
Street: 5801 Logan St. #200	Street:	
City: Denver State/Province: CO Zip/Postal Code: 80216	City: State/Province: Zip/Postal Code:	
Phone: 302-548-1175 Fax:	Phone: Fax:	
Project Name: EPA - Floor 4 - Clearance	Email Results To: alex@srenvironmental consulting.com	U.S. State where Samples Collected: CO
# Samples in Shipment: 3	Date of Shipment: 4/29/18 Purchase Order: 018013	Sampled By (Signature):

Turnaround Time (TAT) – Please Check: If No Selection Made, Standard 2 Week TAT Will Apply

☐ 2 Week ☐ 1 Week ☐ 4 Day ☐ 3 Day ☒ 2 Day ☐ 1 Day ☐ Other (Call Lab)

Media Type: Various
Manufacturer/Part #: Lot #:

Client Sample ID	Location/Description	Analyte / Method	Media	Flow (lpm)	Sample Time On	Sample Time Off	Volume / Area	Sample Type	Sample Date	Comments
4-CL-PM10	4th Floor	EPA IP-10A	37 mm filter				2472 L	☒ Area ☐ Personal	4/29/18	
4-CL-4PCH	↓	OSHA-CS1	Sorbent tube				24 L	☒ Area ☐ Personal	↓	
4-CL-FORM	↓	NIOSH 2016	"				24 L	☒ Area ☐ Personal	↓	
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		

Note: Most NIOSH and OSHA methods require field blanks. It is the IH field sampler's responsibility to submit the proper number of field blanks and duplicates.

Released By	Date	Received By	Date
	4/29/18	JP	5/1/18 9:30a

Comments: *split*

RECEIVED EMSL CINNAMINSON, N.J. 2018 MAY -1 A 11:24

EMSL Analytical, Inc.
200 Route 130 North, Cinnaminson, NJ 08077

EMSL Order ID: 491800401

Attn: Alex Green
S&R Environmental Consulting, Inc
5801 Logan Street, #200
Denver, CO 80216

Customer ID: SREC85

Date Received: 5/1/2018

Project: EPA/Boots

Report Date: 5/3/2018

Data Analyzed: 5/1/2018

Fixed Gas Analysis by Using The Draeger CMS (Chip Measurement System)

Sample ID	Identification	Compound	Detection Limit (ppmV)	Sample Result (ppmV)
491800401-1	4-CL-TO15	Carbon dioxide	250	550
		Carbon monoxide	6.2	<6.2

K. Wolkowicz
Analyst

Marge Howley
Lab Manager

EMSL Analytical
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856)858-4800 / (856)858-4571
http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491800401**
Customer ID: **SREC85**
Customer PO: **18013**

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**

Project: **EPA/Boots**

Date Collected: **4/30/2018**
Date Received: **5/1/2018**

Laboratory Report- Sample Summary

EMSL Sample ID.	Client Sample ID.	Start Sampling Date	Start Sampling Time
491800401-0001	4-CL-TO15	4/30/2018	9:30 AM

If "Preliminary Report" is displayed in the signature box; this indicates that there are samples that have not yet been analyzed, that are in a preliminary state, or that analysis is in progress but not completed at the time of report issue.

Report Date:	Report Revision	Revision Comments
5/3/2018	R0	Initial Report

Marjorie Howley, Laboratory Manager
or other approved signatory

Test results meet all NELAP requirements unless otherwise specified.
NJDEP Certification #: 03036

EMSL Analytical
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856)858-4800 / (856)858-4571
http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491800401**
EMSL Sample #: **491800401-1**
Customer ID: **SREC85**
Customer PO: **18013**

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**
Date Collected: **4/30/2018**
Date Received: **5/1/2018**

Project: **EPA/Boots**

Sample ID: 4-CL-TO15

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	05/01/2018	TP	K15645.D	E0392	307.5 cc	1

Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
Propylene	115-07-1	42.08	ND	1.0		ND	1.7	
Freon 12(Dichlorodifluoromethane)	75-71-8	120.9	ND	0.50		ND	2.5	
Freon 114(1,2-Dichlorotetrafluoroethan	76-14-2	170.9	ND	0.50		ND	3.5	
Chloromethane	74-87-3	50.49	ND	0.50		ND	1.0	
n-Butane	106-97-8	58.12	**3.8**	0.50		**9.1**	1.2	
Vinyl chloride	75-01-4	62.50	ND	0.50		ND	1.3	
1,3-Butadiene	106-99-0	54.09	ND	0.50		ND	1.1	
Bromomethane	74-83-9	94.94	ND	0.50		ND	1.9	
Chloroethane	75-00-3	64.52	ND	0.50		ND	1.3	
Ethanol	64-17-5	46.07	**40**	0.50		**75**	0.94	
Bromoethene(Vinyl bromide)	593-60-2	106.9	ND	0.50		ND	2.2	
Freon 11(Trichlorofluoromethane)	75-69-4	137.4	ND	0.50		ND	2.8	
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	**2.3**	0.50		**5.6**	1.2	
Freon 113(1,1,2-Trichlorotrifluoroethan	76-13-1	187.4	ND	0.50		ND	3.8	
Acetone	67-64-1	58.08	**6.2**	0.50		**15**	1.2	
1,1-Dichloroethene	75-35-4	96.94	ND	0.50		ND	2.0	
Acetonitrile	75-05-8	41.00	**27**	0.50		**45**	0.84	
Tertiary butyl alcohol(TBA)	75-65-0	74.12	ND	0.50		ND	1.5	
Bromoethane(Ethyl bromide)	74-96-4	108.0	ND	0.50		ND	2.2	
3-Chloropropene(Allyl chloride)	107-05-1	76.53	ND	0.50		ND	1.6	
Carbon disulfide	75-15-0	76.14	ND	0.50		ND	1.6	
Methylene chloride	75-09-2	84.94	ND	0.50		ND	1.7	
Acrylonitrile	107-13-1	53.00	ND	0.50		ND	1.1	
Methyl-tert-butyl ether(MTBE)	1634-04-4	88.15	ND	0.50		ND	1.8	
trans-1,2-Dichloroethene	156-60-5	96.94	ND	0.50		ND	2.0	
n-Hexane	110-54-3	86.17	**0.80**	0.50		**2.8**	1.8	
1,1-Dichloroethane	75-34-3	98.96	ND	0.50		ND	2.0	
Vinyl acetate	108-05-4	86.00	ND	0.50		ND	1.8	
2-Butanone(MEK)	78-93-3	72.10	**0.54**	0.50		**1.6**	1.5	
cis-1,2-Dichloroethene	156-59-2	96.94	ND	0.50		ND	2.0	
Ethyl acetate	141-78-6	88.10	**2.2**	0.50		**8.1**	1.8	
Chloroform	67-66-3	119.4	ND	0.50		ND	2.4	
Tetrahydrofuran	109-99-9	72.11	ND	0.50		ND	1.5	
1,1,1-Trichloroethane	71-55-6	133.4	ND	0.50		ND	2.7	
Cyclohexane	110-82-7	84.16	ND	0.50		ND	1.7	
2,2,4-Trimethylpentane(Isooctane)	540-84-1	114.2	ND	0.50		ND	2.3	
Carbon tetrachloride	56-23-5	153.8	ND	0.50		ND	3.1	
n-Heptane	142-82-5	100.2	ND	0.50		ND	2.0	
1,2-Dichloroethane	107-06-2	98.96	ND	0.50		ND	2.0	
Benzene	71-43-2	78.11	ND	0.50		ND	1.6	
Trichloroethene	79-01-6	131.4	ND	0.50		ND	2.7	
1,2-Dichloropropane	78-87-5	113.0	ND	0.50		ND	2.3	
Methyl Methacrylate	80-62-6	100.12	ND	0.50		ND	2.0	
Bromodichloromethane	75-27-4	163.8	ND	0.50		ND	3.3	
1,4-Dioxane	123-91-1	88.12	ND	0.50		ND	1.8	
4-Methyl-2-pentanone(MIBK)	108-10-1	100.2	ND	0.50		ND	2.0	

EMSL Analytical
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856)858-4800 / (856)858-4571
http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491800401**
EMSL Sample #: **491800401-1**
Customer ID: **SREC85**
Customer PO: **18013**

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**
Date Collected: **4/30/2018**
Date Received: **5/1/2018**

Project: **EPA/Boots**

Sample ID: 4-CL-TO15

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	05/01/2018	TP	K15645.D	E0392	307.5 cc	1

Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
cis-1,3-Dichloropropene	10061-01-5	111.0	ND	0.50		ND	2.3	
Toluene	108-88-3	92.14	1.3	0.50		4.8	1.9	
trans-1,3-Dichloropropene	10061-02-6	111.0	ND	0.50		ND	2.3	
1,1,2-Trichloroethane	79-00-5	133.4	ND	0.50		ND	2.7	
2-Hexanone(MBK)	591-78-6	100.1	ND	0.50		ND	2.0	
Tetrachloroethene	127-18-4	165.8	ND	0.50		ND	3.4	
Dibromochloromethane	124-48-1	208.3	ND	0.50		ND	4.3	
1,2-Dibromoethane	106-93-4	187.8	ND	0.50		ND	3.8	
Chlorobenzene	108-90-7	112.6	ND	0.50		ND	2.3	
Ethylbenzene	100-41-4	106.2	ND	0.50		ND	2.2	
Xylene (p,m)	1330-20-7	106.2	ND	1.0		ND	4.3	
Xylene (Ortho)	95-47-6	106.2	ND	0.50		ND	2.2	
Styrene	100-42-5	104.1	ND	0.50		ND	2.1	
Isopropylbenzene (cumene)	98-82-8	120.19	ND	0.50		ND	2.5	
Bromoform	75-25-2	252.8	ND	0.50		ND	5.2	
1,1,2,2-Tetrachloroethane	79-34-5	167.9	ND	0.50		ND	3.4	
4-Ethyltoluene	622-96-8	120.2	ND	0.50		ND	2.5	
1,3,5-Trimethylbenzene	108-67-8	120.2	ND	0.50		ND	2.5	
2-Chlorotoluene	95-49-8	126.6	ND	0.50		ND	2.6	
1,2,4-Trimethylbenzene	95-63-6	120.2	ND	0.50		ND	2.5	
1,3-Dichlorobenzene	541-73-1	147.0	ND	0.50		ND	3.0	
1,4-Dichlorobenzene	106-46-7	147.0	ND	0.50		ND	3.0	
Benzyl chloride	100-44-7	126.0	ND	0.50		ND	2.6	
1,2-Dichlorobenzene	95-50-1	147.0	ND	0.50		ND	3.0	
1,2,4-Trichlorobenzene	120-82-1	181.5	ND	0.50		ND	3.7	
Hexachloro-1,3-butadiene	87-68-3	260.8	ND	0.50		ND	5.3	
Naphthalene	91-20-3	128.17	ND	0.50		ND	2.6	
Total Target Compound Concentrations:			**84**	**ppbv**		**170**	**ug/m3**	

Surrogate	Result	Spike	Recovery
4-Bromofluorobenzene	9.9	10	99%

Qualifier Definitions

ND = Non Detect

B = Compound also found in method blank.

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air…" Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).

EMSL Analytical
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http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491800401**
EMSL Sample #: **491800401-1**
Customer ID: **SREC85**
Customer PO: **18013**

Attn: **Alex Green**
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5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**
Date Collected: **4/30/2018**
Date Received: **5/1/2018**

Project: **EPA/Boots**

Sample ID: 4-CL-TO15

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	05/01/2018	TP	K15645.D	E0392	307.5 cc	1

Tentatively Identified Compound Results Summary

Tentatively Identified Compounds	CAS#	MW(1)	Result ppbv	Q	Result ug/m3	Retention Time	Comments
Propane	000074-98-6	44	**3.1**	JN	**5.5**	5.52	
Butane, 2-methyl-	000078-78-4	72	**2.3**	JN	**6.9**	8.08	
Pentane	000109-66-0	72	**2.0**	JN	**5.8**	9.01	
Total TIC Concentrations:			**7.4**	**ppbv**	**18**	**ug/m3**	

Qualifier Definitions

(1) = If unknown, MW is assigned as equivalent Toluene (92) for ug/m3 conversion purposes.

B = Compound also found in method blank.

J= Estimated value based on a 1:1 response to internal standard.

N= Presumptive evidence of compound based on library match.

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air…" Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).

EMSL Analytical
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856)858-4800 / (856)858-4571
http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491800401**
EMSL Sample #: **491800401-1**
Customer ID: **SREC85**
Customer PO: **18013**

Attn: **Alex Green**
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5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**
Date Collected: **4/30/2018**
Date Received: **5/1/2018**

Project: **EPA/Boots**

Sample ID: 4-CL-TO15

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	05/01/2018	TP	K15645.D	E0392	307.5 cc	1

Total Volatile Organic Compounds (TVOC) Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
n-Butane	106-97-8	58.12	**3.8**	0.50		**9.1**	1.2	
Ethanol	64-17-5	46.07	**40**	0.50		**75**	0.94	
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	**2.3**	0.50		**5.6**	1.2	
Acetone	67-64-1	58.08	**6.2**	0.50		**15**	1.2	
Acetonitrile	75-05-8	41.00	**27**	0.50		**45**	0.84	
n-Hexane	110-54-3	86.17	**0.80**	0.50		**2.8**	1.8	
2-Butanone(MEK)	78-93-3	72.10	**0.54**	0.50		**1.6**	1.5	
Ethyl acetate	141-78-6	88.10	**2.2**	0.50		**8.1**	1.8	
Toluene	108-88-3	92.14	**1.3**	0.50		**4.8**	1.9	
Total Target Compound Concentrations:			**84**	**ppbv**		**170**	**ug/m3**	

Qualifier Definitions

B = Compound also found in method blank.

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.

Tentatively Identified Compounds	CAS#	MW(1)	Result ppbv		Q	Result ug/m3	Retention Time	Comments
Propane	000074-98-6	44	**3.1**		JN	**5.5**	5.52	
Butane, 2-methyl-	000078-78-4	72	**2.3**		JN	**6.9**	8.08	
Pentane	000109-66-0	72	**2.0**		JN	**5.8**	9.01	
Total TIC Concentrations:			**7.4**	**ppbv**		**18**	**ug/m3**	

Qualifier Definitions

(1) = If unknown, MW is assigned as equivalent Toluene (92) for ug/m3 conversion purposes.

B = Compound also found in method blank.

J= Estimated value based on a 1:1 response to internal standard.

N= Presumptive evidence of compound based on library match.

Total Volatile Organic Compounds (TVOCs):	91	ppbv	190	ug/m3

USEPA TO-15
External Chain of Custody/ Field Test Data Sheet

EMSL Analytical, Inc.
200 Route 130 North
Cinnaminson, NJ 08077
Ph. (800) 220-3675
Fax (856) 786-0327

EMSL ANALYTICAL, INC.

EMSL Order Number (Lab Use Only): 491800401

Report To Contact Name:	Bill To Company:	Sampled By (Sign):
Company Name: SAR Environmental	Attention To: SAME	Sampled By (Name): Tom Ziegler
Address 1: 5801 Logan St #200	Address 1:	Total # of Samples: 1
Address 2: Denver CO 80216	Address 2:	Date Shipped: 4/29/18
Phone No.: 303-297-3909 Fax:	Phone No.: Fax:	Sample Collection Zip Code: 80202
Email Results To: Alex@sarenvironmentalconsulting.com	Project Name: EPA/Boots	Purchase Order: 018013

Turnaround Time (in Business Days): ☐ 10 Day Standard ☐ 5 Day ☐ 4 Day ☐ 3 Day ☒ 2 Day ☐ 1 Day ☐ Other

Reporting Format: ☒ Results Only (Standard Lab Report) ☐ Full Deliverables (Surcharge may apply) ☐ Other

EMSL Sample Identifier	Client Field Sample Identification	Field Use - All Information Required! Sampling Start Information Barometric Pres. ("Hg): Start Date	Time (24 hr clock)	Canister Pressure ("Hg)	Interior Temp. (F)	Sampling Stop Information Barometric Pres. ("Hg): Stop Date	Time (24 hr clock)	Canister Pressure ("Hg)	Interior Temp. (F)	Lab Use Only Canister Information: Canister ID	Size (L)	Can Cert Batch ID	Outgoing Pressure ("Hg)	Incoming Pressure ("Hg)	Flow Contoller: Reg. ID	Cal Flow (ml/min)	Analysis: USEPA TO-15	NJDEP LLTO-15	LIBRARY SEARCH	Other (Specify)	Matrix: Indoor/ Ambient Air	Soil Gas	Landfill/ Vent
	4-CL-TO15	4/30	9:30	25	72	4/30	15:30	1	72°	E0392	6	3580	-29.4	-6.0	8041	21.2	X		X		X		

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APR 30 2018
CINNAMINSON, NJ

Comments:

Lab Canister Certification
Analyst Signature (TO-15):

Relinquished by:	Date/ Time	Received by:	Date/ Time	Seal #/Intact	Reason for Exchange (circle appropriate)
Carlyn Peters	4/25/18 1555		4/26/18	508	(Shipping) Courier Receiving Sampling Other:
	4/29/18	Bob H	5/1/18 930	509 (Y)	Shipping Courier Receiving Sampling Other:
Bob 5/1/18	1035		5/1/18 1139		Shipping Courier Receiving Sampling (Other:) Air
					Shipping Courier Receiving Sampling Other:
					Shipping Courier Receiving Sampling Other:

491800401

TO-15 Sample Information

Please fill out this worksheet in addition to the Chain of Custody form. This information helps us to best analyze your samples, achieve requested TAT, and provide you with helpful interpretation information.

Company: S&R ENVIRONMENTAL CONSULTING

Contact Person:

Name: ALEX GREEN

E-mail: ALEX@SRENVIRONMENTALCONSULTING.COM

Additional E-mails:

Telephone #: 303-297-3965

Library Search requested: [X] YES [ ] NO

A library search (*aka Tentatively Identified Compounds*) will identify up to 20 of the largest, non-target peaks that are not part of the standard TO-15 list of 74 compounds. If you are performing an Indoor Air Quality or odor investigation, the library search is recommended to provide you with all available information for your sample.

Sample Type:

[X] **Indoor Air Quality (Home/Office)** [ ] **Soil Gas/Sub Slab**
[ ] **IAQ (Industrial)**
[ ] **Other:**
Sample Description:_____

PLEASE NOTE: The result forms we provide will not indicate whether your results have exceeded any Exposure Limit criteria established by any regulatory agency. If you would like that information, please check off below which regulatory comparison forms you would like to receive.

[ ] **OSHA PELs/NIOSH RELs**	*combined form*		[ ] **Potential Sources of Compounds found in your IAQ sample**		
[ ] **EPA RSLs** - *11/2017*	Residential	Industrial	[X] **TVOC (Library Search Required for this format)**		
[ ] **NJ DEP** *1/2018* **- Circle one:**	VI-Indoor AQ	VI-Soil Gas	[ ] **Ohio** *4/2013* **-Circle one:**	Residential	Commercial
[ ] **NC DENR** *4/2014* **-Circle one:**	Residential	Non-residential	[ ] **Indiana Dept Env Mgmt Screeening Levels** *3/2016*		
[ ] **PA DEP** - *11/2016*	Indoor Air		[ ] **Vermont DEP IROCP** *4/2012* **(soil gas only)**		
[ ] **PA DEP-** 11/2016: Sub Slab Soil Gas **OR** Near Source Soil Gas			[ ] **California OEHHA** *2/2012*		
[ ] **CA HHSL** *11/2004* **-Circle one:**	Indoor Air	Soil Gas	[ ] **Other; these are the compounds I want reported:**		

RECEIVED
EMSL
CINNAMINSON, N.J.
2018 MAY -1 AM 10:32

Please note: There is an additional charge for any of the tests below. **USEPA TO-3 AND ASTM 5504 analyses can be performed from your canister at the Cinnaminson NJ Laboratory.**

US EPA TO-3 via GC/FID **(choose one below):**

[ ] **C_1-C_6 hydrocarbons**
[ ] **Methane only**

ASTM-D5504 *via GC/SCD* **(choose one below):***

[ ] **Sulfur Scan (H_2S, COS, MeSH, EtSH, DMS)**
[ ] **H_2S only**

Note** : **Hold time for sulfur gases is 1 day from collection. Please schedule your sample collection so samples are received in the lab prior to noon on Friday. Analysis performed out of hold time will have a notation in the report.

We can provide the following CMS tests from your canisters at the **Cinnaminson and Huntington Beach** laboratories. Please note these tests are to be used for IAQ/Screening purposes ONLY. EMSL recommends alternate field sampling techniques for these parameters (with the exception of water vapor); please contact your sales rep for the proper media. Please note: There is an additional charge for any of the tests below.

Draeger CMS Analyzer:
[X] **CO** [X] **CO_2** [ ] **NH_3** [ ] **O2** [ ] **Water Vapor**

Sample Retention Policy: All canisters are guaranteed to be retained for one day after results are reported. Please review your results promptly to ensure your project scope is fully addressed. Cans may be retained for a longer period of time, but arrangements to hold your cans must be made through your customer account representative quickly. Thank you.

Wisconsin Occupational Health Laboratory
WISCONSIN STATE LABORATORY OF HYGIENE
UNIVERSITY OF WISCONSIN-MADISON

2601 Agriculture Drive
Madison, WI 53718
Phone: (800) 446-0403
Fax: (608) 224-6213
Web: wohl-lab.org

ALEX GREEN

S & R ENVIRONMENTAL CONSULTING

STE 200

5801 LOGAN ST

DENVER, CO 80216

Lab Workorder ID	378823
Visit/Project ID	EPA/BOOTS
PO	018013
Received	May 1, 2018
Reported	May 3, 2018
Report ID	5228622
Previous Report IDs	

Dear ALEX GREEN:

Enclosed are the analytical results for sample(s) received by the laboratory on May 1, 2018. All samples received were acceptable, results were not blank corrected, and all quality control met laboratory standards unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact the lab.

Sincerely,

Steve Strebel, Laboratory Director

Analyst - JOHN GLOWACKI

Wisconsin Occupational Health Laboratory
WISCONSIN STATE LABORATORY OF HYGIENE
UNIVERSITY OF WISCONSIN-MADISON

2601 Agriculture Drive
Madison, WI 53718
Phone: (800) 446-0403
Fax: (608) 224-6213
Web: www.wohl-lab.org

Final Report

Lab ID: **378823001**	Sample ID: **4-CL-CAP**	Media: **OVS-7 TUBE**
Sampling Date: **4/29/2018**	Matrix: **Air**	Sampled Time:

					RESULT				
Analyte	**Method**	**Analysis Date**	**Air Volume**	**Reporting Limit**	**Front**	**Rear**	**Total**	**Air Concentration**	**TWA**
Caprolactam (Dust and Vapor)	OSHA PV2012	5/2/2018	100 L	1.5 ug	<1.5 ug	<1.5 ug	<1.5 ug	<0.015 mg/m3	

Abbreviations:

mg = milligrams	ppm or ppmv = parts per million	/m3 = per cubic meter
ug = micrograms	ppb or ppbv = parts per billion	/ft2 = per square foot
ng = nanograms	EU = Endotoxin Units	fibers/cc = fibers per cubic centimeter

< Less Than. The analyte, if present, is at a level too low to be accurately quantitated by the method used

End of Analytical Report

The results in this report apply only to the samples, specifically listed above, and tested at the Wisconsin Occupational Health Laboratory

EMSL Analytical - Industrial Hygiene
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (800) 220-3675 /
http://www.EMSL.com IndustrialHygienelab@emsl.com

EMSL Order:	281802056
CustomerID:	SREC85
CustomerPO:	018013
ProjectID:	

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone:	(303) 297-1645
Fax:	(303) 297-1646
Received:	05/08/18 11:00 AM
Analysis Date:	5/9/2018
Collected:	5/7/2018

Project: **EPA - Floor 3 - Clearances**

Test Report: PM10 Analysis of Particulate Matter Performed by EPA Reference Method 40 CFR, Chapter I, Part 50, App. J

Sample	*Location*	*Volume (L)*	*Initial Weight (mg)*	*Final Weight (mg)*	*Sample Weight (mg)*	*Concentration (µg/m³)*	*Reporting Limit (µg/m³)*	*Notes*
3-CL-PM10	3rd Floor	2472	56.222	57.994	1.8	730	0.81	
281802056-0001								

Notes: Discernable field blank not submitted with samples.
Results are not field blank corrected.

Analyst(s)

Katherine Foster (1)

Scott Van Etten, CIH, Laboratory Manager
or other approved signatory

Initial report from 05/09/2018 12:30:02

THIS IS THE LAST PAGE OF THE REPORT.

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Industrial Hygiene Chain of Custody

EMSL Order Number (Lab Use Only):
-281802056

EMSL ANALYTICAL, INC.
200 ROUTE 130 NORTH
CINNAMINSON, NJ 08077
PHONE: (800) 220-3675
FAX: (856) 858-3502

OrderID: 281802056

Report To Contact Name: Alex Green	**Bill To Company:** SAME	**Client ID #:**
Company Name: S&R Environmental Consulting	**Attention To:**	
Street: 5801 Logan St. #200	**Street:**	
City: Denver **State/Province:** CO **Zip/Postal Code:** 80212	**City:** **State/Province:** **Zip/Postal Code:**	
Phone: 303-548-1175 **Fax:**	**Phone:** **Fax:**	
Project Name: EPA - Floor 3 - Clearances	**Email Results To:** alex@SRenvironmentalconsulting.com	**U.S. State where Samples Collected:** CO
# Samples in Shipment: 3	**Date of Shipment:** 5/7/18 **Purchase Order:** 018013	**Sampled By (Signature):**

Turnaround Time (TAT) – Please Check: If No Selection Made, Standard 2 Week TAT Will Apply

☐ 2 Week ☐ 1 Week ☐ 4 Day ☐ 3 Day ☐ 2 Day ☒ 1 Day ☐ Other (Call Lab)

Media Type: Various

Manufacturer/Part #: **Lot #:**

Client Sample ID	Location/Description	Analyte / Method	Media	Flow (lpm)	Sample Time On	Sample Time Off	Volume / Area	Sample Type	Sample Date	Comments
3-CL-PM10	3rd Floor	EPA IP-10A	37 MM Filter				2472 L	☒ Area ☐ Personal	5/7/18	
3-CL-4PCH	↓	OSHA-CS1	tube				24 L	☒ Area ☐ Personal		
3-CL-FORM	↓	NIOSH 2016	"				24 L	☒ Area ☐ Personal		
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		

RECEIVED
EMSL
CINNAMINSON, N.J.
2018 MAY -8 A 10:56

Note: Most NIOSH and OSHA methods require field blanks. It is the IH field sampler's responsibility to submit the proper number of field blanks and duplicates.

Released By	Date	Received By	Date
	5/7/18	Bob H	5/8/18

Comments:

(3) Split
1 PM10
1 2016
1 CS1

EMSL Analytical, Inc. 200 Route 130 North, Cinnaminson, NJ 08077

Order ID: 281802057

Attn:	Alex Green S&R Environmental Consulting, Inc 5801 Logan Street, #200 Denver, CO 80216	Customer ID: Customer PO: Date Received:	SREC85 018013 05/08/2018
Project: Report Date:	**EPA – Floor 3 - Clearance** 05/09/2018	EMSL Project ID: Date Analyzed:	 05/08/2018

Test Report – 4-Phenylcyclohexene Analysis by GC/FID via Modified OSHA CSI Method

Sample ID	Identification	Sample Volume (L)	Sample Weight (µg)	Sample Conc. (µg/m^3)	Reporting Limit (µg/m^3)
281802057-0001	3-CL-4PCH	24	<0.030	<1.3	<1.3
Desorption Blank	-	0	<0.030	ND	NA

Notes:

1. Samples were received in acceptable condition unless otherwise noted.
2. These results relate only to the samples tested.
3. Sample results are not blank corrected unless otherwise noted.
4. Discernable field blank(s) submitted with samples if reported above.

TC/VK/VMD
Analyst

Scott VanEtten, CIH- Lab Manager
Or other approved signatory

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Industrial Hygiene Chain of Custody

EMSL Order Number (Lab Use Only): 281802057

EMSL ANALYTICAL, INC.
200 ROUTE 130 NORTH
CINNAMINSON, NJ 08077
PHONE: (800) 220-3675
FAX: (856) 858-3502

Report To Contact Name: Alex Green			**Bill To Company:** SAME		**Client ID #:**
Company Name: S&R Environmental Consulting			**Attention To:**		
Street: 5801 Logan St. #200			**Street:**		
City: Denver	**State/Province:** CO	**Zip/Postal Code:** 80212	**City:**	**State/Province:**	**Zip/Postal Code:**
Phone: 303-548-1175 **Fax:**			**Phone:**	**Fax:**	
Project Name: EPA - Floor 3 - Clearances			**Email Results To:** alex@srenvironmental Consulting - com		**U.S. State where Samples Collected:** CO
# Samples in Shipment: 3	**Date of Shipment:** 5/7/18		**Purchase Order:** 01803	**Sampled By (Signature):**	

Turnaround Time (TAT) – Please Check: If No Selection Made, Standard 2 Week TAT Will Apply

☐ 2 Week ☐ 1 Week ☐ 4 Day ☐ 3 Day ☐ 2 Day ☒ 1 Day ☐ Other (Call Lab)

Media Type: Vortech

Manufacturer/Part #: **Lot #:**

Client Sample ID	Location/Description	Analyte / Method	Media	Flow (lpm)	Sample Time On	Sample Time Off	Volume / Area	Sample Type	Sample Date	Comments
3-CL-PM10	3rd Floor	EPA IP-10A	37 MM Filter				2472 L	☒ Area ☐ Personal	5/7/18	
3-CL-4PCH	↓	OSHA-CSI	tube				24 L	☒ Area ☐ Personal		
3-CL-FORM		NIOSH 2016	"				24 L	☒ Area ☐ Personal		
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		

RECEIVED EMSL CINNAMINSON, N.J. 2018 MAY -8 P 12:12

Note: Most NIOSH and OSHA methods require field blanks. It is the IH field sampler's responsibility to submit the proper number of field blanks and duplicates.

Released By	Date	Received By	Date
	5/7/18	JP	5/8/18 9:25

Comments:

(3) Split
1 PM10
1 2016
1 CSI

OrderID: 281802057

EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077
Phone/Fax: (800) 220-3675 /
http://www.EMSL.com / IndustrialHygienelab@emsl.com

EMSL Order ID:	281802058
Customer ID:	SREC85
Customer PO:	018013
Project ID:	

Attn: Alex Green
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: (303) 297-1645
Fax: (303) 297-1646
Collected:
Received: 5/08/2018
Analyzed: 5/08/2018

Proj: EPA - Floor 3 - Clearances

Test Report:Formaldehyde Analysis by HPLC of Solid Sorbent Tubes via NIOSH 2016, Issue 2, 3/15/03 modified

Sample ID	Identification	Volume	Sample Weight	Sample Concentration		Reporting Limit
3-CL-FORM 281802058-0001	3rd Floor	24 L	0.38 µg	0.016 mg/m³	0.013 ppm	0.0021 mg/m³
Media Blank		N/A	<0.050 µg	<0.050 µg	N/A	N/A

N/A = Not Applicable

Analyst(s)
Thomas Cancglin

Scott Van Etten, CIH, Laboratory Manager

Any questions please contact Scott VanEtten.

Initial report from: 05/09/2018 12:58:45

1. Samples were received in acceptable condition unless otherwise noted.
2. These results relate only to the samples tested.
3. Sample results are blank corrected. Reporting Limits for samples without volumes, such as Field Blanks, are 0.050 ug.
4. A discernable Field Blank was submitted if listed above as a discrete sample.

Samples analyzed by EMSL Analytical - Industrial Hygiene Cinnaminson, NJ AIHA-LAP, LLC--IHLAP Accred. Lab 100194

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Industrial Hygiene Chain of Custody

EMSL Order Number (Lab Use Only): 281802058

EMSL ANALYTICAL, INC.
200 ROUTE 130 NORTH
CINNAMINSON, NJ 08077
PHONE: (800) 220-3675
FAX: (856) 858-3502

Report To Contact Name: Alex Green	Bill To Company: SAME	Client ID #:
Company Name: S&R Environmental Consulting	Attention To:	
Street: 5801 Logan St. #200	Street:	
City: Denver State/Province: CO Zip/Postal Code: 80212	City: State/Province: Zip/Postal Code:	
Phone: 303-548-1175 Fax:	Phone: Fax:	
Project Name: EPA - Floor 3 - Clearances	Email Results To: alex@srenvironmental Consulting - com	U.S. State where Samples Collected: CO
# Samples in Shipment: 3	Date of Shipment: 5/7/18 Purchase Order: 01813	Sampled By (Signature):

Turnaround Time (TAT) – Please Check: If No Selection Made, Standard 2 Week TAT Will Apply

☐ 2 Week ☐ 1 Week ☐ 4 Day ☐ 3 Day ☐ 2 Day ☒ 1 Day ☐ Other (Call Lab)

Media Type: Various

Manufacturer/Part #: Lot #:

Client Sample ID	Location/Description	Analyte / Method	Media	Flow (lpm)	Sample Time On	Sample Time Off	Volume / Area	Sample Type	Sample Date	Comments
3-CL-PM10	3rd Floor	EPA IP-10A	37 mm Filter				2472 L	☒ Area ☐ Personal	5/7/18	
3-CL-4PCH	↓	OSHA-CS1	tube				24 L	☒ Area ☐ Personal		
3-CL-FORM		NIOSH 2016	"				24 L	☒ Area ☐ Personal		
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		

RECEIVED EMSL CINNAMINSON, N.J. 2018 MAY -8 P 12:12

Note: Most NIOSH and OSHA methods require field blanks. It is the IH field sampler's responsibility to submit the proper number of field blanks and duplicates.

Released By	Date	Received By	Date
	5/7/18	JP.	5/8/18 9:25

Comments:

(3) Split
1 PM10
1 2016
1 CS1

OrderID: 281802058

EMSL Analytical, Inc.
200 Route 130 North, Cinnaminson, NJ 08077

EMSL Order ID: 491800426

Attn: Alex Green
S&R Environmental Consulting
5801 Logan Street #200
Denver CO 80216

Customer ID: SREC85

Date Received: 5/8/2018

Project: EPA 3rd Floor

Report Date: 5/9/2018

Data Analyzed: 5/8/2018

Fixed Gas Analysis by Using The Draeger CMS (Chip Measurement System)

Sample ID	Identification	Compound	Detection Limit (ppmV)	Sample Result (ppmV)
491800426-1	3-CL-TO15	Carbon dioxide	240	550
		Carbon monoxide	6.1	<6.1

T. Peters
Analyst

Marge Howley
Lab Manager

EMSL Analytical
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856)858-4800 / (856)858-4571
http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491800426**
Customer ID: **SREC85**
Customer PO: **18013**

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**

Project: **EPA 3rd Floor**

Date Collected: **5/7/2018**
Date Received: **5/8/2018**

Laboratory Report- Sample Summary

EMSL Sample ID.	Client Sample ID.	Start Sampling Date	Start Sampling Time
491800426-0001	3-CL-TO15	5/7/2018	8:10 AM

If "Preliminary Report" is displayed in the signature box; this indicates that there are samples that have not yet been analyzed, that are in a preliminary state, or that analysis is in progress but not completed at the time of report issue.

Report Date:	Report Revision	Revision Comments
5/9/2018	R0	Initial Report

Marjorie Howley, Laboratory Manager
or other approved signatory

Test results meet all NELAP requirements unless otherwise specified.
NJDEP Certification #: 03036

EMSL Analytical
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856)858-4800 / (856)858-4571
http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491800426**
EMSL Sample #: **491800426-1**
Customer ID: **SREC85**
Customer PO: **18013**

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**
Date Collected: **5/7/2018**
Date Received: **5/8/2018**

Project: **EPA 3rd Floor**

Sample ID: 3-CL-TO15

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	05/08/2018	TP	K15750.D	E0266	305 cc	1
Dilution1	05/08/2018	TP	K15753.D	E0266	31 cc	10

Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
Propylene	115-07-1	42.08	ND	1.0		ND	1.7	
Freon 12(Dichlorodifluoromethane)	75-71-8	120.9	ND	0.50		ND	2.5	
Freon 114(1,2-Dichlorotetrafluoroethan	76-14-2	170.9	ND	0.50		ND	3.5	
Chloromethane	74-87-3	50.49	**1.0**	0.50		**2.1**	1.0	
n-Butane	106-97-8	58.12	**6.6**	0.50		**16**	1.2	
Vinyl chloride	75-01-4	62.50	ND	0.50		ND	1.3	
1,3-Butadiene	106-99-0	54.09	ND	0.50		ND	1.1	
Bromomethane	74-83-9	94.94	ND	0.50		ND	1.9	
Chloroethane	75-00-3	64.52	ND	0.50		ND	1.3	
Ethanol	64-17-5	46.07	**21**	0.50		**40**	0.94	
Bromoethene(Vinyl bromide)	593-60-2	106.9	ND	0.50		ND	2.2	
Freon 11(Trichlorofluoromethane)	75-69-4	137.4	**0.54**	0.50		**3.1**	2.8	
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	**4.1**	0.50		**10**	1.2	
Freon 113(1,1,2-Trichlorotrifluoroethan	76-13-1	187.4	ND	0.50		ND	3.8	
Acetone	67-64-1	58.08	**7.6**	0.50		**18**	1.2	
1,1-Dichloroethene	75-35-4	96.94	ND	0.50		ND	2.0	
Acetonitrile	75-05-8	41.00	**150**	5.0	D	**240**	8.4	***Reported Dilution #1***
Tertiary butyl alcohol(TBA)	75-65-0	74.12	ND	0.50		ND	1.5	
Bromoethane(Ethyl bromide)	74-96-4	108.0	ND	0.50		ND	2.2	
3-Chloropropene(Allyl chloride)	107-05-1	76.53	ND	0.50		ND	1.6	
Carbon disulfide	75-15-0	76.14	ND	0.50		ND	1.6	
Methylene chloride	75-09-2	84.94	**0.82**	0.50		**2.8**	1.7	
Acrylonitrile	107-13-1	53.00	ND	0.50		ND	1.1	
Methyl-tert-butyl ether(MTBE)	1634-04-4	88.15	ND	0.50		ND	1.8	
trans-1,2-Dichloroethene	156-60-5	96.94	ND	0.50		ND	2.0	
n-Hexane	110-54-3	86.17	**0.77**	0.50		**2.7**	1.8	
1,1-Dichloroethane	75-34-3	98.96	ND	0.50		ND	2.0	
Vinyl acetate	108-05-4	86.00	ND	0.50		ND	1.8	
2-Butanone(MEK)	78-93-3	72.10	**0.67**	0.50		**2.0**	1.5	
cis-1,2-Dichloroethene	156-59-2	96.94	ND	0.50		ND	2.0	
Ethyl acetate	141-78-6	88.10	**2.0**	0.50		**7.3**	1.8	
Chloroform	67-66-3	119.4	ND	0.50		ND	2.4	
Tetrahydrofuran	109-99-9	72.11	ND	0.50		ND	1.5	
1,1,1-Trichloroethane	71-55-6	133.4	ND	0.50		ND	2.7	
Cyclohexane	110-82-7	84.16	ND	0.50		ND	1.7	
2,2,4-Trimethylpentane(Isooctane)	540-84-1	114.2	ND	0.50		ND	2.3	
Carbon tetrachloride	56-23-5	153.8	ND	0.50		ND	3.1	
n-Heptane	142-82-5	100.2	**0.72**	0.50		**2.9**	2.0	
1,2-Dichloroethane	107-06-2	98.96	ND	0.50		ND	2.0	
Benzene	71-43-2	78.11	**0.53**	0.50		**1.7**	1.6	
Trichloroethene	79-01-6	131.4	ND	0.50		ND	2.7	
1,2-Dichloropropane	78-87-5	113.0	ND	0.50		ND	2.3	
Methyl Methacrylate	80-62-6	100.12	ND	0.50		ND	2.0	
Bromodichloromethane	75-27-4	163.8	ND	0.50		ND	3.3	
1,4-Dioxane	123-91-1	88.12	ND	0.50		ND	1.8	
4-Methyl-2-pentanone(MIBK)	108-10-1	100.2	ND	0.50		ND	2.0	

EMSL Analytical
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856)858-4800 / (856)858-4571
http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491800426**
EMSL Sample #: **491800426-1**
Customer ID: **SREC85**
Customer PO: **18013**

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**
Date Collected: **5/7/2018**
Date Received: **5/8/2018**

Project: **EPA 3rd Floor**

Sample ID: 3-CL-TO15

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	05/08/2018	TP	K15750.D	E0266	305 cc	1
Dilution1	05/08/2018	TP	K15753.D	E0266	31 cc	10

Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
cis-1,3-Dichloropropene	10061-01-5	111.0	ND	0.50		ND	2.3	
Toluene	108-88-3	92.14	1.6	0.50		5.9	1.9	
trans-1,3-Dichloropropene	10061-02-6	111.0	ND	0.50		ND	2.3	
1,1,2-Trichloroethane	79-00-5	133.4	ND	0.50		ND	2.7	
2-Hexanone(MBK)	591-78-6	100.1	ND	0.50		ND	2.0	
Tetrachloroethene	127-18-4	165.8	ND	0.50		ND	3.4	
Dibromochloromethane	124-48-1	208.3	ND	0.50		ND	4.3	
1,2-Dibromoethane	106-93-4	187.8	ND	0.50		ND	3.8	
Chlorobenzene	108-90-7	112.6	ND	0.50		ND	2.3	
Ethylbenzene	100-41-4	106.2	ND	0.50		ND	2.2	
Xylene (p,m)	1330-20-7	106.2	ND	1.0		ND	4.3	
Xylene (Ortho)	95-47-6	106.2	ND	0.50		ND	2.2	
Styrene	100-42-5	104.1	ND	0.50		ND	2.1	
Isopropylbenzene (cumene)	98-82-8	120.19	ND	0.50		ND	2.5	
Bromoform	75-25-2	252.8	ND	0.50		ND	5.2	
1,1,2,2-Tetrachloroethane	79-34-5	167.9	ND	0.50		ND	3.4	
4-Ethyltoluene	622-96-8	120.2	ND	0.50		ND	2.5	
1,3,5-Trimethylbenzene	108-67-8	120.2	ND	0.50		ND	2.5	
2-Chlorotoluene	95-49-8	126.6	ND	0.50		ND	2.6	
1,2,4-Trimethylbenzene	95-63-6	120.2	ND	0.50		ND	2.5	
1,3-Dichlorobenzene	541-73-1	147.0	ND	0.50		ND	3.0	
1,4-Dichlorobenzene	106-46-7	147.0	ND	0.50		ND	3.0	
Benzyl chloride	100-44-7	126.0	ND	0.50		ND	2.6	
1,2-Dichlorobenzene	95-50-1	147.0	ND	0.50		ND	3.0	
1,2,4-Trichlorobenzene	120-82-1	181.5	ND	0.50		ND	3.7	
Hexachloro-1,3-butadiene	87-68-3	260.8	ND	0.50		ND	5.3	
Naphthalene	91-20-3	128.17	ND	0.50		ND	2.6	
Total Target Compound Concentrations:			**200**	**ppbv**		**350**	**ug/m3**	

Surrogate	Result	Spike	Recovery
4-Bromofluorobenzene	10	10	100%

Qualifier Definitions

ND = Non Detect

B = Compound also found in method blank.

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air…" Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).

EMSL Analytical
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Phone/Fax: (856)858-4800 / (856)858-4571
http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491800426**
EMSL Sample #: **491800426-1**
Customer ID: **SREC85**
Customer PO: **18013**

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**
Date Collected: **5/7/2018**
Date Received: **5/8/2018**

Project: **EPA 3rd Floor**

Sample ID: 3-CL-TO15

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	05/08/2018	TP	K15750.D	E0266	305 cc	1
Dilution1	05/08/2018	TP	K15753.D	E0266	31 cc	10

Tentatively Identified Compound Results Summary

Tentatively Identified Compounds	CAS#	MW(1)	Result ppbv	Q	Result ug/m3	Retention Time	Comments
unknown		92	**2.0**	JN	**7.6**	5.51	
Butane, 2-methyl-	000078-78-4	72	**3.0**	JN	**9.0**	8.07	
Pentane	000109-66-0	72	**2.6**	JN	**7.6**	9.01	
Total TIC Concentrations:			**7.6**	**ppbv**	**24**	**ug/m3**	

Qualifier Definitions

(1) = If unknown, MW is assigned as equivalent Toluene (92) for ug/m3 conversion purposes.

B = Compound also found in method blank.

J= Estimated value based on a 1:1 response to internal standard.

N= Presumptive evidence of compound based on library match.

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air…" Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).

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EMSL Order #: **491800426**
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Attn: **Alex Green**
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Date Collected: **5/7/2018**
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Project: **EPA 3rd Floor**
Sample ID: 3-CL-TO15

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	05/08/2018	TP	K15750.D	E0266	305 cc	1
Dilution1	05/08/2018	TP	K15753.D	E0266	31 cc	10

Total Volatile Organic Compounds (TVOC) Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
Chloromethane	74-87-3	50.49	**1.0**	0.50		**2.1**	1.0	
n-Butane	106-97-8	58.12	**6.6**	0.50		**16**	1.2	
Ethanol	64-17-5	46.07	**21**	0.50		**40**	0.94	
Freon 11(Trichlorofluoromethane)	75-69-4	137.40	**0.54**	0.50		**3.1**	2.8	
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	**4.1**	0.50		**10**	1.2	
Acetone	67-64-1	58.08	**7.6**	0.50		**18**	1.2	
Acetonitrile	75-05-8	41.00	**150**	5.0	D	**240**	8.4	***Reported Dilution #1***
Methylene chloride	75-09-2	84.94	**0.82**	0.50		**2.8**	1.7	
n-Hexane	110-54-3	86.17	**0.77**	0.50		**2.7**	1.8	
2-Butanone(MEK)	78-93-3	72.10	**0.67**	0.50		**2.0**	1.5	
Ethyl acetate	141-78-6	88.10	**2.0**	0.50		**7.3**	1.8	
n-Heptane	142-82-5	100.20	**0.72**	0.50		**2.9**	2.0	
Benzene	71-43-2	78.11	**0.53**	0.50		**1.7**	1.6	
Toluene	108-88-3	92.14	**1.6**	0.50		**5.9**	1.9	
Total Target Compound Concentrations:			**200**	**ppbv**		**350**	**ug/m3**	

Qualifier Definitions

B = Compound also found in method blank.

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.

Tentatively Identified Compounds	CAS#	MW(1)	Result ppbv		Q	Result ug/m3	Retention Time	Comments
unknown		92	**2.0**		JN	**7.6**	5.51	
Butane, 2-methyl-	000078-78-4	72	**3.0**		JN	**9.0**	8.07	
Pentane	000109-66-0	72	**2.6**		JN	**7.6**	9.01	
Total TIC Concentrations:			**7.6**	**ppbv**		**24**	**ug/m3**	

Qualifier Definitions

(1) = If unknown, MW is assigned as equivalent Toluene (92) for ug/m3 conversion purposes.

B = Compound also found in method blank.

J= Estimated value based on a 1:1 response to internal standard.

N= Presumptive evidence of compound based on library match.

Total Volatile Organic Compounds (TVOCs):	210	ppbv	370	ug/m3

USEPA TO-15
External Chain of Custody/ Field Test Data Sheet

EMSL Analytical, Inc.
200 Route 130 North
Cinnaminson, NJ 08077
Ph. (800) 220-3675
Fax (856) 786-0327

EMSL ANALYTICAL, INC. LABORATORY • PRODUCTS • TRAINING

EMSL Order Number (Lab Use Only): 491800426

Report To Contact Name: Alex Green	Bill To Company: SAME	Sampled By (Sign):
Company Name: SGR Environmental Consulting	Attention To:	Sampled By (Name): Alex Green
Address 1: 5801 Logan St. #200	Address 1:	Total # of Samples: 1
Address 2: Denver, Co 80216	Address 2:	Date Shipped: 5/7/18
Phone No.: 303-548-1175 Fax:	Phone No.: Fax:	Sample Collection Zip Code: 80202
Email Results To: alex@sgrenvironmental consulting.com	Project Name: EPA 3rd Floor	Purchase Order: 018613

Turnaround Time (in Business Days): ☐ 10 Day Standard ☐ 5 Day ☐ 4 Day ☐ 3 Day ☐ 2 Day ☒ 1 Day ☐ Other

Reporting Format: ☒ Results Only (Standard Lab Report) ☐ Full Deliverables (Surcharge may apply) ☐ Other

EMSL Sample Identifier	Client Field Sample Identification	Field Use - All Information Required!								Lab Use Only							Analysis				Matrix		
		Sampling Start Information				Sampling Stop Information				Canister Information					Flow Contoller								
		Barometric Pres. ("Hg):				Barometric Pres. ("Hg):																	
		Start Date	Time (24 hr clock)	Canister Pressure ("Hg)	Interior Temp. (F)	Stop Date	Time (24 hr clock)	Canister Pressure ("Hg)	Interior Temp. (F)	Canister ID	Size (L)	Can Cert Batch ID	Outgoing Pressure ("Hg)	Incoming Pressure ("Hg)	Reg. ID	Cal Flow (ml/min)	USEPA TO-15	NJDEP LLTO-15	LIBRARY SEARCH	Other (Specify)	Indoor/ Ambient Air	Soil Gas	Landfill/ Vent
	3-CL-TO15	5/7/18	8:10	24	70	5/7/18	12:10	0	70	E0266	6	C3586	-29.8	-5.8	3516	21.2	X		X		X		

Comments:

Lab Canister Certification
Analyst Signature (TO-15):

Relinquished by:	Date/ Time	Received by:	Date/ Time	Seal #/Intact	Reason for Exchange (circle appropriate)
	5/3/18 1428		5/4/18	562	Shipping Courier Receiving Sampling Other:
	5/7/18 563	Bob G	5/8/18 925	Y	Shipping Courier Receiving Sampling Other:
Bob 5/8/18	1045	Matrix	5/08/18 1128		Shipping Courier Receiving Sampling Other:
					Shipping Courier Receiving Sampling Other:
					Shipping Courier Receiving Sampling Other:

RECEIVED
2018 MAY -8 AM 10:52
EMSL ANALYTICAL, INC.
LINDEN, NJ

491800426

TO-15 Sample Information

Please fill out this worksheet in addition to the Chain of Custody form. This information helps us to best analyze your samples, achieve requested TAT, and provide you with helpful interpretation information.

Company: S&R Environmental Consulting

Contact Person:

Name: Alex Green

E-mail: alex@srenvironmentalconsulting.com

Additional E-mails:

Telephone #: 307-548-1175

Library Search requested: [X] YES [ ] NO

A library search (*aka Tentatively Identified Compounds*) will identify up to 20 of the largest, non-target peaks that are not part of the standard TO-15 list of 74 compounds. If you are performing an Indoor Air Quality or odor investigation, the library search is recommended to provide you with all available information for your sample.

Sample Type:

[X] **Indoor Air Quality (Home/Office)**
[ ] **IAQ (Industrial)**
[ ] **Other:**
[ ] **Soil Gas/Sub Slab**

Sample Description: _____

PLEASE NOTE: The result forms we provide will not indicate whether your results have exceeded any Exposure Limit criteria established by any regulatory agency. If you would like that information, please check off below which regulatory comparison forms you would like to receive.

[X] **OSHA PELs/NIOSH RELs**	*combined form*		[ ] **Potential Sources of Compounds found in your IAQ sample**		
[ ] **EPA RSLs** - *11/2017*	Residential	Industrial	[X] **TVOC (Library Search Required for this format)**		
[ ] **NJ DEP** *1/2018* **- Circle one:**	VI-Indoor AQ	VI-Soil Gas	[ ] **Ohio** *4/2013* **-Circle one:**	Residential	Commercial
[ ] **NC DENR** *4/2014* **-Circle one:**	Residential	Non-residential	[ ] **Indiana Dept Env Mgmt Screeening Levels** *3/2016*		
[ ] **PA DEP** - *11/2016*	Indoor Air		[ ] **Vermont DEP IROCP** *4/2012* **(soil gas only)**		
[ ] **PA DEP-** 11/2016: Sub Slab Soil Gas **OR** Near Source Soil Gas			[ ] **California OEHHA** *2/2012*		
[ ] **CA HHSL** *11/2004* **-Circle one:**	Indoor Air	Soil Gas	[ ] **Other; these are the compounds I want reported:**		

RECEIVED
2018 MAY -8 AM 10:52
EMSL
CINNAMINSON, NJ

Please note: There is an additional charge for any of the tests below. **USEPA TO-3 AND ASTM 5504 analyses can be performed from your canister at the Cinnaminson NJ Laboratory.**

US EPA TO-3 via GC/FID **(choose one below):**

[ ] C_1-C_6 **hydrocarbons**
[ ] **Methane only**

ASTM-D5504 *via GC/SCD* **(choose one below):**

[ ] **Sulfur Scan (H_2S, COS, MeSH, EtSH, DMS)**
[ ] **H_2S only**

Note** : **Hold time for sulfur gases is 1 day from collection. Please schedule your sample collection so samples are received in the lab prior to noon on Friday. Analysis performed out of hold time will have a notation in the report.

We can provide the following CMS tests from your canisters at the **Cinnaminson and Huntington Beach** laboratories. Please note these tests are to be used for IAQ/Screening purposes ONLY. EMSL recommends alternate field sampling techniques for these parameters (with the exception of water vapor); please contact your sales rep for the proper media. Please note: There is an additional charge for any of the tests below.

Draeger CMS Analyzer:
[X] **CO** [X] **CO_2** [ ] **NH_3** [ ] **O2** [ ] **Water Vapor**

Sample Retention Policy: All canisters are guaranteed to be retained for one day after results are reported. Please review your results promptly to ensure your project scope is fully addressed. Cans may be retained for a longer period of time, but arrangements to hold your cans must be made through your customer account representative quickly. Thank you.

Wisconsin Occupational Health Laboratory
WISCONSIN STATE LABORATORY OF HYGIENE
UNIVERSITY OF WISCONSIN-MADISON

2601 Agriculture Drive
Madison, WI 53718
Phone: (800) 446-0403
Fax: (608) 224-6213
Web: wohl-lab.org

ALEX GREEN

S & R ENVIRONMENTAL CONSULTING

STE 200

5801 LOGAN ST

DENVER, CO 80216

Lab Workorder ID	380118
Visit/Project ID	EPA - 4TH FLOOR CLEAR
PO	018013
Received	May 8, 2018
Reported	May 10, 2018
Report ID	5252990
Previous Report IDs	

Dear ALEX GREEN:

Enclosed are the analytical results for sample(s) received by the laboratory on May 8, 2018. All samples received were acceptable, results were not blank corrected, and all quality control met laboratory standards unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact the lab.

Sincerely,

Steve Strebel, Laboratory Director

Analyst - JOHN GLOWACKI

Wisconsin Occupational Health Laboratory
WISCONSIN STATE LABORATORY OF HYGIENE
UNIVERSITY OF WISCONSIN-MADISON

2601 Agriculture Drive
Madison, WI 53718
Phone: (800) 446-0403
Fax: (608) 224-6213
Web: www.wohl-lab.org

Final Report

Lab ID: **380118001**	Sample ID: **3-CL-CAP**	Media: **OVS-7 TUBE**
Sampling Date: **5/7/2018**	Matrix: **Air**	Sampled Time:

					RESULT				
Analyte	**Method**	**Analysis Date**	**Air Volume**	**Reporting Limit**	**Front**	**Rear**	**Total**	**Air Concentration**	**TWA**
Caprolactam (Dust and Vapor)	OSHA PV2012	5/9/2018	101 L	1.5 ug	<1.5 ug	<1.5 ug	<1.5 ug	<0.015 mg/m3	

Abbreviations:
mg = milligrams ppm or ppmv = parts per million /m3 = per cubic meter
ug = micrograms ppb or ppbv = parts per billion ng = nanograms
< Less Than. The analyte, if present, is at a level too low to be accurately quantitated by the method used

End of Analytical Report

The results in this report apply only to the samples, specifically listed above, and tested at the Wisconsin Occupational Health Laboratory

EMSL Analytical - Industrial Hygiene
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (800) 220-3675 /
http://www.EMSL.com IndustrialHygienelab@emsl.com

EMSL Order:	281802204
CustomerID:	SREC85
CustomerPO:	CC-031615
ProjectID:	

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone:	(303) 297-1645
Fax:	(303) 297-1646
Received:	05/15/18 10:50 AM
Analysis Date:	5/16/2018
Collected:	5/14/2018

Test Report: PM10 Analysis of Particulate Matter Performed by EPA Reference Method 40 CFR, Chapter I, Part 50, App. J

Sample	*Location*	*Volume (L)*	*Initial Weight (mg)*	*Final Weight (mg)*	*Sample Weight (mg)*	*Concentration (µg/m³)*	*Reporting Limit (µg/m³)*	*Notes*
18-0613	3rd Floor	2568	54.212	56.474	2.3	900	0.78	
281802204-0001								
18-0630	4th Floor	2432	59.842	60.258	0.42	170	0.82	
281802204-0002								

Notes: Discernable field blank not submitted with samples.
Results are not field blank corrected.

Analyst(s)

Thomas Cancglin (2)

Scott Van Etten, CIH, Laboratory Manager
or other approved signatory

Initial report from 05/16/2018 14:57:25

HAYES
MICROBIAL CONSULTING
3005 East Boundary Terrace, #F
Midlothian, VA 23112, USA
804.562.3435 Fax: 804.447.5562

Company: _____

Chain of Custo

Form v.2101208

HMC # 014987

Job Number: 018013 | Job Name: EPA/Boots | Collector: Tom Ziegler | Email: see notes

Date Collected: 5-14-18 | Notes: tom@srenvironmentalconsulting.com

Mobile: 7203174259

MS

Sample #	Sample Name	Analysis Type	Volume	TAT	Notes
2263151	3rd Floor	P	75.4 L	24	
2263129	4th Floor	P	75.75 L	24	
2263150	Entrance Main Lobby	P	76.0 L	24	

Analysis Type		Description	TAT	Acceptable Sample Types
Spore Trap	S	Identification & Enumeration of Fungal Spores	24 Hour	Spore Trap cassettes, Impact slides
	S+	I & E of Fungal Spores + total dander, fiber and pollen count	24 Hour	Spore Trap cassettes, Impact slides
Direct ID	D	ID and Semi-quantative enumeration of spores and mycelium	24 Hour	Tape, Bio-tape, swab, bulk, agar plate for ID only
	D+	ID and Enumeration with spores count	24 Hour	Tape, Bio-tape, swab, bulk, agar plate for ID only
Culture	C1	Identification & Enumeration of Mold only	7 Day	Anderson Air Plate, Swab, Bulk
	C2	Identification & Enumeration of Bacteria only	4 Day	Anderson Air Plate, Swab, Bulk
	C3	Identification & Enumeration of Mold and Bacteria	7 Day	Anderson Air Plate, Swab, Bulk
	C5	Coliform Screen for Sewage Bacteria	2 Day	Anderson Air Plate, Swab, Bulk
Dust Mite	A1	Semi-quantative analysis of dust mite allergen	24 Hour	Bulk Dust
Particle	P	Total Particulate Analysis	24 Hour	Spore Trap cassettes, Impact slides, Bio-Tape

Relinquished by: Tom Ziegler | Date: 5-14-18 | Rcvd By: [illegible] 05/15/18 | Date: | Time:

HAYES
MICROBIAL CONSULTING
3005 East Boundary Terrace, #F
Midlothian, VA 23112, USA
804.562.3435 Fax: 804.447.5562

contact@hayesmicrobial.com
http://hayesmicrobial.com/

Analysis Report prepared for

S&R Environmental Consulting

5801 Logan St. Suite 200
Denver, CO. 80216
Phone: (303) 297-1645

Job Number:	**018013**
Job Name:	**EPA/Boots**
Date Sampled:	**05-14-2018**
Date Analyzed:	**05-15-2018**
Report Date:	**05-15-2018**

EPA Laboratory ID# VA01419

AIHA EMPAT Lab ID# 188863 Mold License: LAB1021 License: #PH-0198

HAYES
MICROBIAL CONSULTING
3005 East Boundary Terrace, #F
Midlothian, VA 23112, USA
804.562.3435 Fax: 804.447.5562

S&R Environmental Consulting
5801 Logan St.
Suite 200
Denver, CO 80216

May 15, 2018

Client Job Number: 018013
Client Job Name: EPA/Boots

Dear S&R Environmental Consulting,

We would like to thank you for trusting Hayes Microbial for your analytical needs. On May 15, 2018 we received 3 samples by FedEx for the job referenced above. 3 samples were received in good condition.

The results in this analysis pertain only to this job, collected on the stated date and should not be used in the interpretation of any other job. This report may not be duplicated, except in full, without the written consent of Hayes Microbial Consulting, LLC.

This laboratory bears no responsibility for sample collection activities, analytical method limitations, or your use of the test results. Interpretation and use of test results are your responsibility. Any reference to health effects or interpretation of mold levels is strictly the opinion of Hayes Microbial Consulting. In no event, shall Hayes Microbial Consulting or any of its employees be liable for lost profits or any special, incidental or consequential damages arising out of your use of the test results.

Stephen N. Hayes

Steve Hayes, BSMT(ASCP)
Laboratory Director
Hayes Microbial Consulting, LLC

HAYES
MICROBIAL CONSULTING
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Midlothian, VA 23112, USA
804.562.3435 Fax: 804.447.5562

S&R Environmental Consulting
5801 Logan St., Suite 200
Denver, CO 80216
Phone: (303) 297-1645

Particle Analysis
SOP #HMC114

HMC #18014987

Job Number:	**018013**	Job Name:	**EPA/Boots**	Date Collected:	**05/14/2018**
Collected by:	**Tom**			Date Received:	**05/15/2018**
Email:	**tom@srenvironmentalconsulting.com**			Date Reported:	**05/15/2018**

HMC ID Number	18014987 - 1	18014987 - 2	18014987 - 3	
Sample ID#	2263151	2263129	2263150	
Sample Name	3rd Floor	4th Floor	Entrance Main Lobby	
Sample Volume	75 liters	75 liters	76 liters	
Reporting Limit	13 Particles / m3	13 Particles / m3	13 Particles / m3	

Particle	Raw Count	Count / m3	% of Total	Raw Count	Count / m3	% of Total	Raw Count	Count / m3	% of Total	
Dander	240	3183	35.8%	60	792	50.4%	130	1711	73.1%	
Cellulose Fibers	6	80	< 1%	3	40	2.5%	2	26	1.1%	
Synthetic Fibers	1	13	< 1%				1	13	< 1%	
Fiberglass Fibers										
Wood Fibers	1	13	< 1%							
Animal Hair										
Plant Hair										
Human Hair										
Dust Mites, Parts										
Carpet Beetle larvae parts										
Insect Parts										
Insect Frass (Feces)										
Feather Barbule										
Pollen										
Gypsum										
Opaque Particles										
Talc	420	5570	62.6%	55	726	46.2%	35	461	19.7%	
Silicates	3	40	< 1%	1	13	< 1%	2	26	1.1%	
Mineral Salts										
Ash-like Soot							5	66	2.8%	
Char-like Soot							1	13	< 1%	
Aciniform-like Soot							2	26	1.1%	
Total	671	8899		119	1571		178	2342		

Signature: P. Ramesh **Date:** **05/15/2018** **Reviewed by:** Stephen N. Hayes **Date:** **05/15/2018**

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Phone: (303) 297-1645

Particle Information

HMC #18014987

Particle Analysis Hayes Microbial Consulting Particle Analysis test is based on the initial screening procedures from ASTM #D6602. HMC only does light, polarized light, and phase contrast microscopy. No SEM or X-ray defraction is done. Below are some guidelines to help you figure out the totals for the dander, fibers, pollen, and other particle counts by light microscopy.
*Estimated Normal Ranges are based on experience only. There are no standard ranges for this type of testing.

Particle		* Estimated Normal Range	
		Air	Surface
Dander	Home (Carpeted Areas)	1,000-6,000 / M3	10,000-16,000 / cm2
	Home (Hard Surface Areas)	500-5,000 / M3	5,000-16,000 / cm2
	Office or Classroom (Carpeted)	4,000-12,000 / M3	14,000-24,000 / cm2
	Office or Classroom (Hard Surface Areas)	3,000-10,000 / M3	12,000-20,000 / cm2
Cellulose Fibers		0-250 / M3	0-1,600 / cm2
Synthetic Fibers		0-250 / M3	0-1,600 / cm2
Fiberglass Fibers		0-60 / M3	0-400 / cm2
Gypsum Fibers		0-400 / M3	0-1,800 / cm2
Talc		0-250 / M3	0-2,000 / cm2
Dust Mites (parts)		0-30 / M3	0-200 / cm2
Insect Parts		0-30 / M3	0-200 / cm2
Animal Hair		0-30 / M3	0-200 / cm2
Wood Fibers		0-60 / M3	0-200 / cm2
Plant Hairs		0-60 / M3	0-200 / cm2
Human Hair		0-60 / M3	0-200 / cm2
Carpet Beetle Larvae		0-40 / M3	0-200 / cm2
Insect Frass		0-40 / M3	0-400 / cm2
Feather Barbules		0-40 / M3	0-200 / cm2
Opaque Particles		0-100 / M3	0-600 / cm2
Starch		0-40 / M3	0-200 / cm2
Ash-like Soot		0-60 / M3	0-400 / cm2
Char-like Soot		0-60 / M3	0-200 / cm2
Aciniform-like Soot		0-100 / M3	0-800 / cm2
Silicates	(Varies greatly depending on area)	0-500 / M3	0-2,800 / cm2
Pollen	Varies with outdoor pollen levels and whether there are live indoor plants.		
		M3 = per cubic meter	cm2 = per sq. centimeter

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Denver, CO 80216
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Particle Descriptions

HMC #18014987

Aciniform-like Soot

Description: Also known as black carbon, aciniform soot comes from the combustion of oil based or hydrocarbon containing materials. This type of soot should not be confused with Carbon Black, which is a manufactured product that has been used in commerce for over a century and consists of a fine black powder of nearly pure elemental carbon.

Sources: Sources are from the combustion of waste oil, fuel oil, gasoline fuel, diesel fuel, coal, coal-tar pitch, oil shale, rubber, plastics and resins, natural gas fireplaces and stoves, candles etc.

Ash-like Soot

Description: Ash-like soot is formed from the combustion of wood products.

Sources: Sources are wood fireplaces, house fires, forest fires, and burning of leaves and other yard debris.

Cellulose Fibers

Description: Cellulose fibers are natural fibers from plant material.

Sources: Sources of cellulose fibers are paper, cardboard, insulation material.

Char-like Soot

Description: Char-like soot comes from the incomplete combustion of wood products.

Sources: Sources are wood fireplaces, house fires, forest fires, and burning of leaves and other yard debris.

Dander

Description: Dander is dead skin cells. The average person sheds about 600,000 skin cells per day.

Sources: Sources are people and animals.

Silicates

Description: Silicates comprise the majority of the Earth's crust. Sand, Portland cement, and thousands of minerals are examples of silicates.

Sources: Sources are sand and cement.

Synthetic Fibers

Description: Synthetic fibers are man-made fibers such as nylon, polyester, and polyolefin.

Sources: Sources of synthetic fibers are carpet, upholstery and clothing.

Talc

Description: Talc is a mineral composed of hydrated magnesium silicate

Sources: Sources of talc are powder, personal hygiene and cosmetics products, and in powdered laundry detergents and carpet cleaners.

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5801 Logan St., Suite 200
Denver, CO 80216
Phone: (303) 297-1645

Particle Descriptions

HMC #18014987

Wood Fibers

Description: Fibers from woody plants, trees, and lumber.

Sources: Wood and wood products.

EMSL Analytical, Inc. 200 Route 130 North, Cinnaminson, NJ 08077

Order ID: 281803015

Attn:	Alex Green S&R Environmental Consulting, Inc. 5801 Logan Street, #200 Denver, CO 80216	Customer ID: Customer PO: Date Received:	SREC85 018013 07/06/18
Phone: Project: Report Date:	(303) 297-1645 **EPA – Floor 5 – Clerarance** 07/09/18	EMSL Order: EMSL Project ID: Date Analyzed:	281803015 07/06/18

Test Report – 4-Phenylcyclohexene Analysis by GC/FID via Modified OSHA CSI Method

Sample ID	Identification	Sample Volume (L)	Sample Weight (µg)	Sample Conc. (µg/m^3)	Reporting Limit (µg/m^3)
281803015-0001	5-CL-4PCH	24	<0.030	<1.3	1.3
Desorption Blank	-	0	<0.030	ND	NA

Notes:
1. Samples were received in acceptable condition unless otherwise noted.
2. These results relate only to the samples tested.
3. Sample results are not blank corrected unless otherwise noted.
4. Discernable field blank(s) submitted with samples if reported above.

AS/VMD
Analyst

Scott VanEtten, CIH- Lab Manager
Or other approved signatory

Industrial Hygiene Chain of Custody

EMSL Order Number (Lab Use Only): -281803015

EMSL ANALYTICAL, INC.
200 ROUTE 130 NORTH
CINNAMINSON, NJ 08077
PHONE: (800) 220-3675
FAX: (856) 858-3502

Report To Contact Name: Alex Green	Bill To Company: SAME		Client ID #:
Company Name: S&R Environmental Consulting	Attention To:		
Street: 5801 Logan St. #200	Street:		
City: Denver State/Province: CO Zip/Postal Code: 80216	City:	State/Province:	Zip/Postal Code:
Phone: 307-548-1175 Fax:	Phone:	Fax:	
Project Name: EPA - Floor 5 - Clearance	Email Results To: alex@sreav.formental consulting.com	U.S. State where Samples Collected: CO	
# Samples in Shipment: 2 AT	Date of Shipment: 7/6/18	Purchase Order: 018013	Sampled By (Signature):

Turnaround Time (TAT) – Please Check: If No Selection Made, Standard 2 Week TAT Will Apply

☐ 2 Week ☐ 1 Week ☐ 4 Day ☐ 3 Day ☐ Day ☒ 1 Day ☐ Other (Call Lab)

Media Type: Various

Manufacturer/Part #: Lot #:

Client Sample ID	Location/Description	Analyte / Method	Media	Flow (lpm)	Sample Time On	Sample Time Off	Volume / Area	Sample Type	Sample Date	Comments
[redacted]								☒ Area ☐ Personal	7/2/18	
5-CL-4PCH		OSHA-CS1	Sorbent tube				24 L	☒ Area ☐ Personal	7/6/18	
5-CL-FORM	↓	NIOSH 2016	"				24 L	☒ Area ☐ Personal	↓	
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		

Note: Most NIOSH and OSHA methods require field blanks. It is the IH field sampler's responsibility to submit the proper number of field blanks and duplicates.

Released By	Date	Received By	Date
	7/6/18	Bob H 1010	7/6/18

Comments: 2

EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077
Phone/Fax: (800) 220-3675 /
http://www.EMSL.com / IndustrialHygienelab@emsl.com

EMSL Order ID:	281803016
Customer ID:	SREC85
Customer PO:	018013
Project ID:	

Attn: Alex Green
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: (303) 297-1645
Fax: (303) 297-1646
Collected:
Received: 7/06/2018
Analyzed: 7/06/2018

Proj: EPA - Floor 5 - Clearance

Test Report:Formaldehyde Analysis by HPLC of Solid Sorbent Tubes via NIOSH 2016, Issue 2, 3/15/03 modified

Sample ID	Identification	Volume	Sample Weight	Sample Concentration		Reporting Limit
5-CL-FORM 281803016-0001		24 L	0.26 µg	0.011 mg/m³	0.0087 ppm	0.0021 mg/m³
Media Blank		N/A	<0.050 µg	<0.050 µg	N/A	N/A

N/A = Not Applicable

Analyst(s)
Alicia Shafer

Scott Van Etten, CIH, Laboratory Manager

Any questions please contact Scott VanEtten.

Initial report from: 07/09/2018 09:27:19

1. Samples were received in acceptable condition unless otherwise noted.
2. These results relate only to the samples tested.
3. Sample results are blank corrected. Reporting Limits for samples without volumes, such as Field Blanks, are 0.050 ug.
4. A discernable Field Blank was submitted if listed above as a discrete sample.

Samples analyzed by EMSL Analytical - Industrial Hygiene Cinnaminson, NJ AIHA-LAP, LLC--IHLAP Accred. Lab 100194

OrderID: 281803016

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Industrial Hygiene Chain of Custody

EMSL Order Number (Lab Use Only): -281803016

EMSL ANALYTICAL, INC.
200 ROUTE 130 NORTH
CINNAMINSON, NJ 08077
PHONE: (800) 220-3675
FAX: (856) 858-3502

Report To Contact Name: Alex Green	Bill To Company: SAME
Company Name: S&R Environmental Consulting	Client ID #:
Street: 5801 Logan St. #200	Attention To:
City: Denver State/Province: CO Zip/Postal Code: 80216	Street:
Phone: 303-548-1175 Fax:	City: State/Province: Zip/Postal Code:
Project Name: EPA - Floor 5 - Clearance	Phone: Fax:
# Samples in Shipment: 2 AT Date of Shipment: 7/6/18	Email Results To: alex@srenvironmental consulting.com U.S. State where Samples Collected: CO
	Purchase Order: 018013 Sampled By (Signature): [signature]

Turnaround Time (TAT) – Please Check: If No Selection Made, Standard 2 Week TAT Will Apply

☐ 2 Week ☐ 1 Week ☐ 4 Day ☐ 3 Day Day ☒ 1 Day ☐ Other (Call Lab)

Media Type: Various
Manufacturer/Part #: Lot #:

Client Sample ID	Location/Description	Analyte / Method	Media	Flow (lpm)	Sample Time On	Sample Time Off	Volume / Area	Sample Type	Sample Date	Comments
[redacted]										
5-CL-4PCH	↓	OSHA - CS1	Sorbent tube				24 L	☒ Area ☐ Personal	7/6/18	
5-CL-FORM	↓	NIOSH 2016	"				24 L	☒ Area ☐ Personal	↓	
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		

Note: Most NIOSH and OSHA methods require field blanks. It is the IH field sampler's responsibility to submit the proper number of field blanks and duplicates.

Released By	Date	Received By	Date
[signature]	7/6/18	Bub H 1010	7/6/18

Comments:

RECEIVED EMSL CINNAMINSON, N.J. 2018 JUL -6 A 10:09

(2)

Controlled Document – Industrial Hygiene COC – 2015

EMSL Analytical
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856)858-4800 / (856)858-4571
http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491800613**
Customer ID: **SREC85**
Customer PO: **18013**

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**

Project: **EPA - 5th Floor**

Date Collected: **7/5/2018**
Date Received: **7/6/2018**

Laboratory Report- Sample Summary

EMSL Sample ID.	Client Sample ID.	Start Sampling Date	Start Sampling Time
491800613-0001	5-CL-TO15	7/5/2018	9:30 AM

If "Preliminary Report" is displayed in the signature box; this indicates that there are samples that have not yet been analyzed, that are in a preliminary state, or that analysis is in progress but not completed at the time of report issue.

Report Date:	Report Revision	Revision Comments
7/9/2018	R0	Initial Report

Marjorie Howley

Marjorie Howley, Laboratory Manager
or other approved signatory

Test results meet all NELAP requirements unless otherwise specified.
NJDEP Certification #: 03036

The samples associated with this report were received in good condition unless otherwise noted. This report relates only to those items tested as received by the laboratory. The results are not blank corrected unless otherwise noted. Interpretation and use of test results are the responsibility of the client. This report may not be reproduced except in full and without written approval by EMSL Analytical, Inc.

EMSL Analytical
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856)858-4800 / (856)858-4571
http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491800613**
Customer ID: **SREC85**
Customer PO: **18013**

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**

Project: **EPA - 5th Floor**

Date Collected: **7/5/2018**
Date Received: **7/6/2018**

Laboratory Conformance/ Non-Conformance Summary

For the following Samples: 491800613-0001

Samples met criteria as listed unless otherwise noted.

Sample Pressures/ Vacuums **- S**amples were received within acceptable range.

Holding Times (30 days) **-** Samples were analyzed within holding times.

BFB Tune **-** Samples were analyzed within 24 hours of an acceptable instrument tuning standard.

Surrogate Recoveries **-** Samples met surrogate recovery criteria.

Internal Standards **-** Samples met internal standard area/retention time criteria.

Initial Calibration- Initial Calibration criteria met method specification.

Initial Calibration Verification Standard (ICVS)- **Second Source**- ICVS met method specification with all compounds within 30% deviation. Individual compounds outside the method specification may be listed below.

Continuing Calibration Verification Standard (CCVS)- CCVS met method specification with all compounds within 30% deviation with the following exceptions: Chloromethane, Vinyl chloride and Chloroethane. Of these compounds only chloromethane was found in this sample; the results for this compound may be biased high.

Ending Calibration Verification Standard (ECVS)- ECVS met method specification with all compounds within 30% deviation with the following exceptions: Propene, Freons 12 and 114, Chloromethane, Butane, Vinyl Chloride, 1,3-Butadiene, Bromomethane and Chloroethane. Of these compounds Chloromethane and Butane were found in this sample; the results for this compound in the sample may be biased high.

Method Blanks (MB)- Method Blank met method specification with no compounds reported.

Instrument Blanks (IB)- No Instrument Blanks were analyzed.

Reporting Limit Laboratory Control Samples (RLLCS)- RLLCS did not meet method specification with 90% of compounds within the 60-140% recovery range. Individual compounds outside of the recovery range may be listed below. The same compounds failed high in the RLLCS as in the ECVS causing <90% of compounds not meeting criteria.

Additional Comments:

The following data qualifiers that may have been reported with the data,

ND- Non Detect. This notation would be used in the results column in lieu of a "U" qualifier.

U- Compound was analyzed for but not detected at a listed and appropriately adjusted reporting level.

J- Estimated value reported below adjusted reporting limit for target compounds or estimating a concentration for TICs where a 1:1 response is assumed.

B- Compound found in associated method blank as well as in the sample.

E- Estimated value exceeding upper calibration range of instrument. Ethanol and isopropyl alcohol are not specifically targeted to dilute within calibration range.

D- Compound reported from additional diluted analysis.

N- indicates presumptive evidence of a compound based on library search match.

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air…" Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).

Marjorie Howley, Laboratory Manager
or other approved signatory

EMSL Analytical
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856)858-4800 / (856)858-4571
http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491800613**
EMSL Sample #: **491800613-1**
Customer ID: **SREC85**
Customer PO: **18013**

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**
Date Collected: **7/5/2018**
Date Received: **7/6/2018**

Project: **EPA - 5th Floor**

Sample ID: 5-CL-TO15

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	07/06/2018	mth	P3390.D	E12323	298 cc	1

Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
Propylene	115-07-1	42.08	ND	1.0		ND	1.7	
Freon 12(Dichlorodifluoromethane)	75-71-8	120.9	ND	0.50		ND	2.5	
Freon 114(1,2-Dichlorotetrafluoroethan	76-14-2	170.9	ND	0.50		ND	3.5	
Chloromethane	74-87-3	50.49	**0.81**	0.50		**1.7**	1.0	
n-Butane	106-97-8	58.12	**2.5**	0.50		**5.9**	1.2	
Vinyl chloride	75-01-4	62.50	ND	0.50		ND	1.3	
1,3-Butadiene	106-99-0	54.09	ND	0.50		ND	1.1	
Bromomethane	74-83-9	94.94	ND	0.50		ND	1.9	
Chloroethane	75-00-3	64.52	ND	0.50		ND	1.3	
Ethanol	64-17-5	46.07	**64**	0.50	E	**120**	0.94	
Bromoethene(Vinyl bromide)	593-60-2	106.9	ND	0.50		ND	2.2	
Freon 11(Trichlorofluoromethane)	75-69-4	137.4	ND	0.50		ND	2.8	
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	**4.0**	0.50		**10**	1.2	
Freon 113(1,1,2-Trichlorotrifluoroethan	76-13-1	187.4	ND	0.50		ND	3.8	
Acetone	67-64-1	58.08	**7.1**	0.50		**17**	1.2	
1,1-Dichloroethene	75-35-4	96.94	ND	0.50		ND	2.0	
Acetonitrile	75-05-8	41.00	**1.2**	0.50		**1.9**	0.84	
Tertiary butyl alcohol(TBA)	75-65-0	74.12	ND	0.50		ND	1.5	
Bromoethane(Ethyl bromide)	74-96-4	108.0	ND	0.50		ND	2.2	
3-Chloropropene(Allyl chloride)	107-05-1	76.53	ND	0.50		ND	1.6	
Carbon disulfide	75-15-0	76.14	ND	0.50		ND	1.6	
Methylene chloride	75-09-2	84.94	ND	0.50		ND	1.7	
Acrylonitrile	107-13-1	53.00	ND	0.50		ND	1.1	
Methyl-tert-butyl ether(MTBE)	1634-04-4	88.15	ND	0.50		ND	1.8	
trans-1,2-Dichloroethene	156-60-5	96.94	ND	0.50		ND	2.0	
n-Hexane	110-54-3	86.17	ND	0.50		ND	1.8	
1,1-Dichloroethane	75-34-3	98.96	ND	0.50		ND	2.0	
Vinyl acetate	108-05-4	86.00	ND	0.50		ND	1.8	
2-Butanone(MEK)	78-93-3	72.10	**0.56**	0.50		**1.6**	1.5	
cis-1,2-Dichloroethene	156-59-2	96.94	ND	0.50		ND	2.0	
Ethyl acetate	141-78-6	88.10	ND	0.50		ND	1.8	
Chloroform	67-66-3	119.4	ND	0.50		ND	2.4	
Tetrahydrofuran	109-99-9	72.11	ND	0.50		ND	1.5	
1,1,1-Trichloroethane	71-55-6	133.4	ND	0.50		ND	2.7	
Cyclohexane	110-82-7	84.16	ND	0.50		ND	1.7	
2,2,4-Trimethylpentane(Isooctane)	540-84-1	114.2	ND	0.50		ND	2.3	
Carbon tetrachloride	56-23-5	153.8	ND	0.50		ND	3.1	
n-Heptane	142-82-5	100.2	ND	0.50		ND	2.0	
1,2-Dichloroethane	107-06-2	98.96	ND	0.50		ND	2.0	
Benzene	71-43-2	78.11	ND	0.50		ND	1.6	
Trichloroethene	79-01-6	131.4	ND	0.50		ND	2.7	
1,2-Dichloropropane	78-87-5	113.0	ND	0.50		ND	2.3	
Methyl Methacrylate	80-62-6	100.12	ND	0.50		ND	2.0	
Bromodichloromethane	75-27-4	163.8	ND	0.50		ND	3.3	
1,4-Dioxane	123-91-1	88.12	ND	0.50		ND	1.8	
4-Methyl-2-pentanone(MIBK)	108-10-1	100.2	ND	0.50		ND	2.0	

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Phone/Fax: (856)858-4800 / (856)858-4571
http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491800613**
EMSL Sample #: **491800613-1**
Customer ID: **SREC85**
Customer PO: **18013**

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**
Date Collected: **7/5/2018**
Date Received: **7/6/2018**

Project: **EPA - 5th Floor**

Sample ID: 5-CL-TO15

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	07/06/2018	mth	P3390.D	E12323	298 cc	1

Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
cis-1,3-Dichloropropene	10061-01-5	111.0	ND	0.50		ND	2.3	
Toluene	108-88-3	92.14	ND	0.50		ND	1.9	
trans-1,3-Dichloropropene	10061-02-6	111.0	ND	0.50		ND	2.3	
1,1,2-Trichloroethane	79-00-5	133.4	ND	0.50		ND	2.7	
2-Hexanone(MBK)	591-78-6	100.1	ND	0.50		ND	2.0	
Tetrachloroethene	127-18-4	165.8	ND	0.50		ND	3.4	
Dibromochloromethane	124-48-1	208.3	ND	0.50		ND	4.3	
1,2-Dibromoethane	106-93-4	187.8	ND	0.50		ND	3.8	
Chlorobenzene	108-90-7	112.6	ND	0.50		ND	2.3	
Ethylbenzene	100-41-4	106.2	ND	0.50		ND	2.2	
Xylene (p,m)	1330-20-7	106.2	ND	1.0		ND	4.3	
Xylene (Ortho)	95-47-6	106.2	ND	0.50		ND	2.2	
Styrene	100-42-5	104.1	ND	0.50		ND	2.1	
Isopropylbenzene (cumene)	98-82-8	120.19	ND	0.50		ND	2.5	
Bromoform	75-25-2	252.8	ND	0.50		ND	5.2	
1,1,2,2-Tetrachloroethane	79-34-5	167.9	ND	0.50		ND	3.4	
4-Ethyltoluene	622-96-8	120.2	ND	0.50		ND	2.5	
1,3,5-Trimethylbenzene	108-67-8	120.2	ND	0.50		ND	2.5	
2-Chlorotoluene	95-49-8	126.6	ND	0.50		ND	2.6	
1,2,4-Trimethylbenzene	95-63-6	120.2	ND	0.50		ND	2.5	
1,3-Dichlorobenzene	541-73-1	147.0	ND	0.50		ND	3.0	
1,4-Dichlorobenzene	106-46-7	147.0	ND	0.50		ND	3.0	
Benzyl chloride	100-44-7	126.0	ND	0.50		ND	2.6	
1,2-Dichlorobenzene	95-50-1	147.0	ND	0.50		ND	3.0	
1,2,4-Trichlorobenzene	120-82-1	181.5	ND	0.50		ND	3.7	
Hexachloro-1,3-butadiene	87-68-3	260.8	ND	0.50		ND	5.3	
Naphthalene	91-20-3	128.17	ND	0.50		ND	2.6	
Total Target Compound Concentrations:			**80**	**ppbv**		**160**	**ug/m3**	

Surrogate	Result	Spike	Recovery
4-Bromofluorobenzene	9.3	10	93%

Qualifier Definitions

ND = Non Detect

B = Compound also found in method blank.

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air…" Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).

EMSL Analytical
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856)858-4800 / (856)858-4571
http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491800613**
EMSL Sample #: **491800613-1**
Customer ID: **SREC85**
Customer PO: **18013**

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**
Date Collected: **7/5/2018**
Date Received: **7/6/2018**

Project: **EPA - 5th Floor**

Sample ID: 5-CL-TO15

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	07/06/2018	mth	P3390.D	E12323	298 cc	1

Tentatively Identified Compound Results Summary

Tentatively Identified Compounds	CAS#	MW(1)	Result ppbv	Q	Result ug/m3	Retention Time	Comments
Ethane, 1,1-difluoro-	000075-37-6	66	**1.9**	JN	**5.0**	5.23	
Unknown		92	**2.3**	JN	**8.7**	5.74	
Unknown		92	**2.0**	JN	**7.4**	7.86	
Total TIC Concentrations:			**6.2**	**ppbv**	**21**	**ug/m3**	

Qualifier Definitions

(1) = If unknown, MW is assigned as equivalent Toluene (92) for ug/m3 conversion purposes.

B = Compound also found in method blank.

J= Estimated value based on a 1:1 response to internal standard.

N= Presumptive evidence of compound based on library match.

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air…" Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).

EMSL Analytical
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856)858-4800 / (856)858-4571
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EMSL Order #: **491800613**
EMSL Sample #: **491800613-1**
Customer ID: **SREC85**
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Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**
Date Collected: **7/5/2018**
Date Received: **7/6/2018**

Project: **EPA - 5th Floor**
Sample ID: 5-CL-TO15

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	07/06/2018	mth	P3390.D	E12323	298 cc	1

Total Volatile Organic Compounds (TVOC) Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
Chloromethane	74-87-3	50.49	**0.81**	0.50		**1.7**	1.0	
n-Butane	106-97-8	58.12	**2.5**	0.50		**5.9**	1.2	
Ethanol	64-17-5	46.07	**64**	0.50	E	**120**	0.94	
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	**4.0**	0.50		**10**	1.2	
Acetone	67-64-1	58.08	**7.1**	0.50		**17**	1.2	
Acetonitrile	75-05-8	41.00	**1.2**	0.50		**1.9**	0.84	
2-Butanone(MEK)	78-93-3	72.10	**0.56**	0.50		**1.6**	1.5	
Total Target Compound Concentrations:			**80**	**ppbv**		**160**	**ug/m3**	

Qualifier Definitions

B = Compound also found in method blank.

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.

Tentatively Identified Compounds	CAS#	MW(1)	Result ppbv		Q	Result ug/m3	Retention Time	Comments
Ethane, 1,1-difluoro-	000075-37-6	66	**1.9**		JN	**5.0**	5.23	
Unknown		92	**2.3**		JN	**8.7**	5.74	
Unknown		92	**2.0**		JN	**7.4**	7.86	
Total TIC Concentrations:			**6.2**	**ppbv**		**21**	**ug/m3**	

Qualifier Definitions

(1) = If unknown, MW is assigned as equivalent Toluene (92) for ug/m3 conversion purposes.

B = Compound also found in method blank.

J= Estimated value based on a 1:1 response to internal standard.

N= Presumptive evidence of compound based on library match.

Total Volatile Organic Compounds (TVOCs):	86	ppbv	180	ug/m3

USEPA TO-15
External Chain of Custody/ Field Test Data Sheet

EMSL ANALYTICAL, INC.

EMSL Analytical, Inc.
200 Route 130 North
Cinnaminson, NJ 08077
Ph. (800) 220-3675
Fax (856) 786-0327

EMSL Order Number (Lab Use Only): 491800613

Report To Contact Name: Alex Green	Bill To Company:	Sampled By (Sign):
Company Name: SGR Environmental	Attention To: SAME	Sampled By (Name): Alex Green
Address 1: 5801 Logan St. #200	Address 1:	Total # of Samples:
Address 2:	Address 2:	Date Shipped: 7/6/18
Phone No.: 303-548-1175 Fax:	Phone No.: Fax:	Sample Collection Zip Code: 86202
Email Results To: alex@sgrenvironmental.com	Project Name: EPA - 5th Floor	Purchase Order: 018013

Turnaround Time (in Business Days): ☐ 10 Day Standard ☐ 5 Day ☐ 4 Day ☐ 3 Day ☐ 2 Day ☒ 1 Day ☐ Other

Reporting Format: ☐ Results Only (Standard Lab Report) ☐ Full Deliverables (Surcharge may apply) ☐ Other

EMSL Sample Identifier	Client Field Sample Identification	Field Use - All Information Required! Sampling Start Information Barometric Pres. ("Hg): Start Date	Time (24 hr clock)	Canister Pressure ("Hg)	Interior Temp. (F)	Sampling Stop Information Barometric Pres. ("Hg): Stop Date	Time (24 hr clock)	Canister Pressure ("Hg)	Interior Temp. (F)	Lab Use Only Canister Information: Canister ID	Size (L)	Can Cert Batch ID	Outgoing Pressure ("Hg)	Incoming Pressure ("Hg)	Flow Contoller: Reg. ID	Cal Flow (ml/min)	Analysis: USEPA TO-15	NJDEP LLTO-15	LIBRARY SEARCH	Other (Specify)	Matrix: Indoor/ Ambient Air	Soil Gas	Landfill/ Vent
	5-CL-TO15	7/6/18	9:30	25	72	7/6/18	15:30	0	72	E12323	6	3608	-29.2	-4.8	8063	21.2	X		X		X		

Comments:

Lab Canister Certification
Analyst Signature (TO-15):

Relinquished by:	Date/ Time	Received by:	Date/ Time	Seal #/Intact
	6/26/18 1620	APG	7/3/18	066
APG	7/6/18	Andrew Torres	7/6/18 915	
Andrew Torres	7/6/18 915	Carley Peters Air Tox	7/6/18 1025	

Reason for Exchange (circle appropriate)

(Shipping)	Courier	Receiving	Sampling	Other:	
(Shipping)	Courier	Receiving	Sampling	Other:	
Shipping	Courier	Receiving	Sampling	(Other:)	AN
Shipping	Courier	Receiving	Sampling	Other:	
Shipping	Courier	Receiving	Sampling	Other:	

491800613

RECEIVED
EMSL
CINNAMINSON, N.J.

2018 JUL -6 A 9:51

TO-FM-12 Sample Information
Revision 9
Effective Date: January 22, 2018

TO-15 Sample Information

Please fill out this worksheet in addition to the Chain of Custody form. This information helps us to best analyze your samples, achieve requested TAT, and provide you with helpful interpretation information.

Company: S&R ENVIRONMENTAL CONSULTING

Contact Person:

Name: ALEX GREEN

E-mail: ALEX@SRENVIRONMENTALCONSULTING.COM

Additional E-mails:

Telephone #: 303-297-3965

Library Search requested: [X] YES [ ] NO

A library search (*aka Tentatively Identified Compounds*) will identify up to 20 of the largest, non-target peaks that are not part of the standard TO-15 list of 74 compounds. If you are performing an Indoor Air Quality or odor investigation, the library search is recommended to provide you with all available information for your sample.

Sample Type:

[X] Indoor Air Quality (Home/Office) [ ] Soil Gas/Sub Slab
[ ] IAQ (Industrial)
[ ] Other:

Sample Description: _____

PLEASE NOTE: The result forms we provide will not indicate whether your results have exceeded any Exposure Limit criteria established by any regulatory agency. If you would like that information, please check off below which regulatory comparison forms you would like to receive.

[ ] OSHA PELs/NIOSH RELs	*combined form*			[ ] Potential Sources of Compounds found in your IAQ sample	
[ ] EPA RSLs - *11/2017*	Residential	Industrial		[X] TVOC (Library Search Required for this format)	
[ ] NJ DEP *1/2018* - Circle one:	VI-Indoor AQ	VI-Soil Gas		[ ] Ohio *4/2013* -Circle one:	Residential Commercial
[ ] NC DENR *4/2014* -Circle one:	Residential	Non-residential		[ ] Indiana Dept Env Mgmt Screening Levels *3/2016*	
[ ] PA DEP - *11/2016*	Indoor Air			[ ] Vermont DEP IROCP *4/2012* (soil gas only)	
[ ] PA DEP- 11/2016: Sub Slab Soil Gas OR Near Source Soil Gas				[ ] California OEHHA *2/2012*	
[ ] CA HHSL *11/2004* -Circle one:	Indoor Air	Soil Gas		[ ] Other; these are the compounds I want reported:	

Please note: There is an additional charge for any of the tests below. USEPA TO-3 AND ASTM 5504 analyses can be performed from your canister at the Cinnaminson NJ Laboratory.

US EPA TO-3 via GC/HD (choose one below):

[ ] C_1-C_6 hydrocarbons
[ ] Methane only

ASTM-D5504 *via GC/SCD* (choose one below):

[ ] Sulfur Scan (H_2S, COS, MeSH, EtSH, DMS)
[ ] H_2S only

***Note**: Hold time for sulfur gases is 1 day from collection. Please schedule your sample collection so samples are received in the lab prior to noon on Friday. Analysis performed out of hold time will have a notation in the report.*

We can provide the following CMS tests from your canisters at the Cinnaminson and Huntington Beach laboratories. Please note these tests are to be used for IAQ/Screening purposes ONLY. EMSL recommends alternate field sampling techniques for these parameters (with the exception of water vapor); please contact your sales rep for the proper media. Please note: There is an additional charge for any of the tests below.

Draeger CMS Analyzer:
[X] CO [X] CO_2 [ ] NH_3 [ ] O2 [ ] Water Vapor

Sample Retention Policy: All canisters are guaranteed to be retained for one day after results are reported. Please review your results promptly to ensure your project scope is fully addressed. Cans may be retained for a longer period of time, but arrangements to hold your cans must be made through your customer account representative quickly. Thank you.

EMSL Analytical, Inc.
200 Route 130 North, Cinnaminson, NJ 08077

EMSL Order ID: 491800613

Attn: Alex Green
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Customer ID: SREC85

Date Received: 7/6/2018

Project: EPA 5th Floor

Report Date: 7/9/2018

Data Analyzed: 7/6/2018

Fixed Gas Analysis by Using The Draeger CMS (Chip Measurement System)

Sample ID	Identification	Compound	Detection Limit (ppmV)	Sample Result (ppmV)
491800613-1	5-CL-TO15	Carbon Monoxide	6.0	<6.0
491800613-1	5-CL-TO15	Carbon Dioxide	240	390

K. Wolkowicz
Analyst

Marge Howley
Lab Manager

USEPA TO-15
External Chain of Custody/ Field Test Data Sheet

EMSL Analytical, Inc.
200 Route 130 North
Cinnaminson, NJ 08077
Ph. (800) 220-3675
Fax (856) 786-0327

EMSL ANALYTICAL, INC.

EMSL Order Number (Lab Use Only): 491800613

Report To Contact Name: Alex Green	Bill To Company:	Sampled By (Sign):
Company Name: SGR Environmental	Attention To: SAME	Sampled By (Name): Alex Green
Address 1: 5801 Logan St. #200	Address 1:	Total # of Samples: 1
Address 2:	Address 2:	Date Shipped: 7/6/18
Phone No.: 303-548-1175 Fax:	Phone No.: Fax:	Sample Collection Zip Code: 86202
Email Results To: alex@sgrenvironmental.com	Project Name: EPA - 5th Floor	Purchase Order: 018013

Turnaround Time (in Business Days): ☐ 10 Day Standard
☐ 5 Day ☐ 4 Day ☐ 3 Day
☐ 2 Day ☒ 1 Day ☐ Other

Reporting Format: ☐ Results Only (Standard Lab Report)
☐ Full Deliverables (Surcharge may apply)
☐ Other

EMSL Sample Identifier	Client Field Sample Identification	Field Use - All Information Required! Sampling Start Information Start Date	Start Time (24 hr clock)	Start Barometric Pres. ("Hg)	Start Interior Temp. (F)	Sampling Stop Information Stop Date	Stop Time (24 hr clock)	Stop Barometric Pres. ("Hg)	Stop Interior Temp. (F)	Lab Use Only Canister Information Canister ID	Size (L)	Can Cert Batch ID	Outgoing Pressure ("Hg)	Incoming Pressure ("Hg)	Flow Controller Reg. ID	Flow Controller Cal Flow (ml/min)	Analysis: USEPA TO-15	NJDEP LLTO-15	LIBRARY SEARCH	Other (Specify)	Matrix: Indoor/ Ambient Air	Soil Gas	Landfill/ Vent
	5-CL-TO15	7/6/18	9:30	25	72	7/6/18	15:30	0	72	E12323	6	C3608	-29.2		8063	21.2	X		X		X		

Comments:

Lab Canister Certification
Analyst Signature (TO-15):

Relinquished by:	Date/ Time	Received by:	Date/ Time	Seal #/Intact	Reason for Exchange (circle appropriate)
	6/26/18 1620		7/3/18	066	(Shipping) Courier Receiving Sampling Other:
	7/6/18	Andrew Towels	7/6/18 915		(Shipping) Courier Receiving Sampling Other:
Andrew Towels	7/6/18 915				Shipping Courier Receiving Sampling Other:
					Shipping Courier Receiving Sampling Other:
					Shipping Courier Receiving Sampling Other:

-491800613

RECEIVED
EMSL
CINNAMINSON, N.J.
2018 JUL 26 A 9:51

TO-FM-12 Sample Information
Revision 9
Effective Date: January 22, 2018

TO-15 Sample Information

Please fill out this worksheet in addition to the Chain of Custody form. This information helps us to best analyze your samples, achieve requested TAT, and provide you with helpful interpretation information.

Company: S&R ENVIRONMENTAL CONSULTING

Contact Person:

Name: ALEX GREEN

E-mail: ALEX@SRENVIRONMENTALCONSULTING.COM

Additional E-mails:

Telephone #: 303-297-3965

Library Search requested: [X] YES [ ] NO
A library search (*aka Tentatively Identified Compounds*) will identify up to 20 of the largest, non-target peaks that are not part of the standard TO-15 list of 74 compounds. If you are performing an Indoor Air Quality or odor investigation, the library search is recommended to provide you with all available information for your sample.

Sample Type:

[X] Indoor Air Quality (Home/Office) [ ] Soil Gas/Sub Slab
[ ] IAQ (Industrial)
[ ] Other:
Sample Description: _____

PLEASE NOTE: The result forms we provide will not indicate whether your results have exceeded any Exposure Limit criteria established by any regulatory agency. If you would like that information, please check off below which regulatory comparison forms you would like to receive.

[ ] OSHA PELs/NIOSH RELs	*combined form*			[ ] Potential Sources of Compounds found in your IAQ sample	
[ ] EPA RSLs - *11/2017*	Residential	Industrial		[X] TVOC (Library Search Required for this format)	
[ ] NJ DEP *1/2018* - Circle one:	VI-Indoor AQ	VI-Soil Gas		[ ] Ohio *4/2018* -Circle one:	Residential Commercial
[ ] NC DENR *4/2014* -Circle one:	Residential	Non-residential		[ ] Indiana Dept Env Mgmt Screening Levels *8/2016*	
[ ] PA DEP - *11/2018*	Indoor Air			[ ] Vermont DEP IROCP *4/2012* (soil gas only)	
[ ] PA DEP- 11/2016: Sub Slab Soil Gas OR Near Source Soil Gas				[ ] California OEHHA *2/2012*	
[ ] CA HHSL *11/2004* -Circle one:	Indoor Air	Soil Gas		[ ] Other; these are the compounds I want reported:	

Please note: There is an additional charge for any of the tests below. USEPA TO-3 AND ASTM 5504 analyses can be performed from your canister at the Cinnaminson NJ Laboratory.

US EPA TO-3 *via GC/HD* (choose one below):
[ ] C_1-C_6 hydrocarbons
[ ] Methane only

ASTM-D5504 *via GC/SCD* (choose one below):*
[ ] Sulfur Scan (H_2S, COS, MeSH, EtSH, DMS)
[ ] H_2S only

***Note** : Hold time for sulfur gases is 1 day from collection. Please schedule your sample collection so samples are received in the lab prior to noon on Friday. Analysis performed out of hold time will have a notation in the report.*

We can provide the following CMS tests from your canisters at the Cinnaminson and Huntington Beach laboratories. Please note these tests are to be used for IAQ/Screening purposes ONLY. EMSL recommends alternate field sampling techniques for these parameters (with the exception of water vapor); please contact your sales rep for the proper media. Please note: There is an additional charge for any of the tests below.

Draeger CMS Analyses:
[X] CO [X] CO_2 [ ] NH_3 [ ] $O2$ [ ] Water Vapor

Sample Retention Policy: All canisters are guaranteed to be retained for one day after results are reported. Please review your results promptly to ensure your project scope is fully addressed. Cans may be retained for a longer period of time, but arrangements to hold your cans must be made through your customer account representative quickly. Thank you.

Wisconsin Occupational Health Laboratory
WISCONSIN STATE LABORATORY OF HYGIENE
UNIVERSITY OF WISCONSIN-MADISON

2601 Agriculture Drive
Madison, WI 53718
Phone: (800) 446-0403
Fax: (608) 224-6213
Web: wohl-lab.org

ALEX GREEN

S & R ENVIRONMENTAL CONSULTING

STE 200

5801 LOGAN ST

DENVER, CO 80216

Lab Workorder ID	392403
Visit/Project ID	EPA / BOOTS
PO	018013
Received	July 6, 2018
Reported	July 13, 2018
Report ID	5497857
Previous Report IDs	

Dear ALEX GREEN:

Enclosed are the analytical results for sample(s) received by the laboratory on July 6, 2018. All samples received were acceptable, results were not blank corrected, and all quality control met laboratory standards unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact the lab.

Sincerely,

Steve Strebel, Laboratory Director

Analyst - JOHN GLOWACKI

Wisconsin Occupational Health Laboratory
WISCONSIN STATE LABORATORY OF HYGIENE
UNIVERSITY OF WISCONSIN-MADISON

2601 Agriculture Drive
Madison, WI 53718
Phone: (800) 446-0403
Fax: (608) 224-6213
Web: www.wohl-lab.org

Final Report

Lab ID: **392403001**	Sample ID: **5-CL-CAP**	Media: **OVS-7 TUBE**
Sampling Date: **7/5/2018**	Matrix: **Air**	Sampled Time:

Laboratory Control Spike failed with 74.8% recovery. The low control limit for this spike is 77.2%

					RESULT				
Analyte	**Method**	**Analysis Date**	**Air Volume**	**Reporting Limit**	**Front**	**Rear**	**Total**	**Air Concentration**	**TWA**
Caprolactam (Dust and Vapor)	OSHA PV2012	7/12/2018	100 L	1.5 ug	<1.5 ug	<1.5 ug	<1.5 ug	<0.015 mg/m3	

Abbreviations:
mg = milligrams ppm or ppmv = parts per million /m3 = per cubic meter
ug = micrograms ppb or ppbv = parts per billion ng = nanograms
< Less Than. The analyte, if present, is at a level too low to be accurately quantitated by the method used

End of Analytical Report

The results in this report apply only to the samples, specifically listed above, and tested at the Wisconsin Occupational Health Laboratory

DCM SCIENCE LABORATORY, INC.
12421 W. 49TH AVENUE, UNIT #6
WHEAT RIDGE, CO 80033 - (303) 463-8270

NUISANCE DUST - TOTAL/RESPIRABLE
NIOSH 0500/0600 METHOD(S) - PAGE 1 OF 1

CLIENT:
S&R ENVIRONMENTAL CONSULTING
5801 LOGAN STREET, SUITE 200
DENVER, CO 80216

ANALYSIS DATE: 7-6-18
REPORTING DATE: 7-9-18
RECEIPT DATE: 7-6-18
CLIENT JOB NO.: 018013
PROJECT TITLE: EPA - 5TH FLOOR
DCMSL PROJECT: SREC696

DCM NO.	CLIENT NUMBER	VOLUME (L)	DUST (1) (mg)	NUISANCE DUST TOTAL/RESPIRABLE (1) (mg/m3)
-1R	175564/5-CL-TD	200	<0.001	<0.001
-2R	175568/5-CL-RD	100	<0.001	<0.001

(1) DUST IS CONSIDERED RESPIRABLE BASED ON SAMPLING METHOD. SAMPLES MUST BE COLLECTED USING A CYCLONE DEVICE.

THE SAMPLES WERE ANALYZED USING THE NIOSH 0500/0600 METHOD(S). PREWEIGHED FILTERS WERE POST WEIGHED TO DETERMINE TOTAL NUISANCE DUST COLLECTED ON THE FILTERS. THE COEFFICIENT OF VARIATION OF THIS METHOD AS STATED BY NIOSH 0500 IS 0.043 TO 0.145 FOR A RANGE OF 0.30mg TO 2.00mg PER SAMPLE. THE RANGE STUDIED IN THIS METHOD IS 0.5 TO 10mg/m3.

THE SAMPLES WERE WEIGHED WITH A METTLER XP56 ANALYTICAL MICROBALANCE WITH A REPORTING LIMIT OF ±0.006mg. THE BALANCE IS CERTIFIED TO BE WITHIN INSTRUMENT SPECIFICATIONS AND TRACEABLE TO NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY.

NO BLANK WAS SUBMITTED BY THE CLIENT. THE RESULTS ARE NOT BLANK CORRECTED.

THE SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION. THIS TEST REPORT RELATES ONLY TO THE ITEMS TESTED. THIS REPORT MAY NOT BE REPRODUCED EXCEPT IN FULL WITHOUT THE WRITTEN APPROVAL OF THE LABORATORY.

INDUSTRIAL HYGIENE ISO/IEC 17025:2005 Accredited Laboratory AIHA LAP, LLC AIHAACCREDITEDLABS.ORG Lab ID # 101526

LORI WOOD, ANALYST

DCM SCIENCE LABORATORY, INC.
12421 W. 49th Avenue, Unit #6
Wheat Ridge, CO 80033

(303) 463-8270 (800) 852-7340
(303) 463-8267 – fax

Date/Time Received _____ DCMSL Group No. _____ DCMSL Log No. _____

Field Data Sheet/Chain of Custody

Samples Submitted By:
Company: S&R Enviro
Address:

Job/P.O. # 018013

Project Title EPA - 5th Floor

Contact: Alex Green
Phone:
Cell: 303-548-1175
Email: to Alex

Archive: Asbestos samples are archived for 6 months unless other arrangements are made. All other samples are archived for 3 months.

Turnaround Time Requested:

[X] Standard (3 to 5 Business Days)
[ ] 24 Hour Rush
[ ] 2 Hour Rush (Asbestos Only)
[ ] Other _____

Procedure Requested:

ASBESTOS

Bulk
- [ ] Standard EPA
- [ ] Progressive
- [ ] Point Count
- [ ] Other

Air
- [ ] NIOSH 7400
- [ ] OSHA ID-160
- [ ] Other

DUST & SILICA

- [ ] Silica – Air NIOSH 7500
- [ ] Silica – Bulk
- [ ] Silica – Bulk Respirable
- [X] Dust – NIOSH 0500/0600

Other Analysis: RD = NIOSH 0600
TD = NIOSH 0500

OTHER SERVICES

- [ ] Optical Microscopy
- [ ] X-ray Diffraction – Scan/Search
- [ ] X-ray Diffraction – Clay/Bulk
- [ ] SEM

	Client Sample No.:	Sample Date	Air Volume	Other Information
1	5-CL-RD	7/5/18	200	5th Floor
2	5-CL-TD	"	100	"
3				
4				
5				
6				
7				
8				
9				
10				

Relinquished By: _____ Date/Time 7/6/18

Received By: D Harvey Date/Time 7/6/18 11:30

EMSL Analytical, Inc. 200 Route 130 North, Cinnaminson, NJ 08077

Order ID: 281803986

Attn:	Alex Green S&R Environmental Consulting, Inc. 5801 Logan Street, #200 Denver, CO 80216	Customer ID: Customer PO: Date Received:	SREC85 9/4/2018
		EMSL Order:	281803986
Project:	**EPA – Floor 6 - Clearance**	EMSL Project ID:	
Report Date:	9/5/2018	Date Analyzed:	9/5/2018

Test Report – 4-Phenylcyclohexene Analysis by GC/FID via Modified OSHA CSI Method

Sample ID	Identification	Sample Volume (L)	Sample Weight (µg)	Sample Conc. (µg/m^3)	Reporting Limit (µg/m^3)
281803986-0001	6-CL-4PCH	24	<0.030	<1.3	1.3
Desorption Blank	-	0	<0.030	ND	NA

Notes:
1. Samples were received in acceptable condition unless otherwise noted.
2. These results relate only to the samples tested.
3. Sample results are not blank corrected unless otherwise noted.
4. Discernable field blank(s) submitted with samples if reported above.

TC/VMD
Analyst

Scott VanEtten, CIH- Lab Manager
Or other approved signatory

EMSL ANALYTICAL, INC.

Industrial Hygiene Chain of Custody

EMSL Order Number (Lab Use Only): 281803986

EMSL ANALYTICAL, INC.
200 ROUTE 130 NORTH
CINNAMINSON, NJ 08077
PHONE: (800) 220-3675
FAX: (856) 858-3502

Report To Contact Name: Alex Green	Bill To Company: SAME	Client ID #:
Company Name: S&R Environmental Consulting	Attention To:	
Street: 5801 Logan St. #200	Street:	
City: Denver State/Province: CO Zip/Postal Code: 80216	City: State/Province: Zip/Postal Code:	
Phone: 307-548-1175 Fax:	Phone: Fax:	
Project Name: EPA - Floor 5 - Clearance	Email Results To: alex@SEnvironmentalConsulting.com	U.S. State where Samples Collected: CO
# Samples in Shipment: 2	Date of Shipment: 8/31/18 Purchase Order: 018013	Sampled By (Signature):

Turnaround Time (TAT) – Please Check: If No Selection Made, Standard 2 Week TAT Will Apply
☐ 2 Week ☐ 1 Week ☐ 4 Day ☐ 3 Day ☐ 2 Day ☒ 1 Day ☐ Other (Call Lab)

Media Type: Various
Manufacturer/Part #: Lot #:

Client Sample ID	Location/Description	Analyte / Method	Media	Flow (lpm)	Sample Time On	Sample Time Off	Volume / Area	Sample Type	Sample Date	Comments
[redacted]										
5-CL-4PCH		OSHA-CS1	Sorbent tube				24 L	☒ Area ☐ Personal	8/3/18	
5-CL-FORM		NIOSH 2016	"				24 L	☒ Area ☐ Personal		
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		

Note: Most NIOSH and OSHA methods require field blanks. It is the IH field sampler's responsibility to submit the proper number of field blanks and duplicates.

Released By	Date	Received By	Date
	8/31/18		9/4/18 9:15

Comments:

FX 7955 5338 7143

2 VG

RECEIVED EMSL CINNAMINSON, N.J. 2018 SEP -4 A 11:30

OrderID: 281803986

EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077
Phone/Fax: (800) 220-3675 /
http://www.EMSL.com / IndustrialHygienelab@emsl.com

EMSL Order ID:	281803987
Customer ID:	SREC85
Customer PO:	
Project ID:	

Attn: Alex Green
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: (303) 297-1645
Fax: (303) 297-1646
Collected:
Received: 9/04/2018
Analyzed: 9/04/2018

Proj: EPA - Floor 6 - Clearance

Test Report:Formaldehyde Analysis by HPLC of Solid Sorbent Tubes via NIOSH 2016, Issue 2, 3/15/03 modified

Sample ID	Identification	Volume	Sample Weight	Sample Concentration		Reporting Limit
6-CL-FORM 281803987-0001	EPA Floor 6 Clearance	24 L	0.15 µg	0.0063 mg/m³	0.0051 ppm	0.0021 mg/m³
Media Blank		N/A	<0.050 µg	<0.050 µg	N/A	N/A

N/A = Not Applicable

Analyst(s)
Alicia Shafer

Scott Van Etten, CIH, Laboratory Manager

Any questions please contact Scott VanEtten.

Initial report from: 09/05/2018 11:24:50

1. Samples were received in acceptable condition unless otherwise noted.
2. These results relate only to the samples tested.
3. Sample results are blank corrected. Reporting Limits for samples without volumes, such as Field Blanks, are 0.050 ug.
4. A discernable Field Blank was submitted if listed above as a discrete sample.

Samples analyzed by EMSL Analytical - Industrial Hygiene Cinnaminson, NJ AIHA-LAP, LLC--IHLAP Accred. Lab 100194

EMSL ANALYTICAL, INC.

Industrial Hygiene Chain of Custody

EMSL Order Number (Lab Use Only): 281803987

EMSL ANALYTICAL, INC.
200 ROUTE 130 NORTH
CINNAMINSON, NJ 08077
PHONE: (800) 220-3675
FAX: (856) 858-3502

Report To Contact Name: Alex Green		Bill To Company: SAME	Client ID #:
Company Name: S&R Environmental Consulting		Attention To:	
Street: 5801 Logan St. #200		Street:	
City: Denver	State/Province: CO	Zip/Postal Code: 80216	City:	State/Province:	Zip/Postal Code:
Phone: 303-548-1175 Fax:		Phone:	Fax:
Project Name: EPA - Floor 5 - Clearance		Email Results To: alex@srenvironmental consulting.com	U.S. State where Samples Collected: CO
# Samples in Shipment: 2	Date of Shipment: 8/31/18	Purchase Order: 018013	Sampled By (Signature):

Turnaround Time (TAT) – Please Check: If No Selection Made, Standard 2 Week TAT Will Apply

☐ 2 Week ☐ 1 Week ☐ 4 Day ☐ 3 Day ☐ Day ☒ 1 Day ☐ Other (Call Lab)

Media Type: Various

Manufacturer/Part #: Lot #:

Client Sample ID	Location/Description	Analyte / Method	Media	Flow (lpm)	Sample Time On	Sample Time Off	Volume / Area	Sample Type	Sample Date	Comments
[redacted]										
5-CL-4PCH		OSHA-CS1	Sorbent tube				24 L	☐ Area ☒ Personal	8/3/18	
5-CL-FORM		NIOSH 2016	"				24 L	☒ Area ☐ Personal		
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		

Note: Most NIOSH and OSHA methods require field blanks. It is the IH field sampler's responsibility to submit the proper number of field blanks and duplicates.

Released By	Date	Received By	Date
	8/31/18		9/4/18 9:15

Comments:

Kx 7955 5338 7143 2 VG

RECEIVED EMSL CINNAMINSON, N.J. 2018 SEP -4 A 11:30

EMSL Analytical
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856)858-4800 / (856)858-4571
http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491800817**
Customer ID: **SREC85**
Customer PO: **18013**

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Project: **EPA - 6th Floor**

Phone: **303-297-1645**
Fax: **303-297-1646**
Date Collected: **8/31/2018**
Date Received: **9/4/2018**
Date Analyzed: **9/5/2018**
Analyst: **Tracy Peters**

Fixed Gas Analysis by Using The Draeger CMS (Chip Measurement System)
Laboratory Report- Sample Summary

EMSL Sample ID.	Client Sample ID.	Compound	Detection Limit (ppmV)	Sample Result (ppmV)
491800817-0001	#1	Carbon Monoxide	6.5	<6.5
491800817-0001	#1	Carbon Dioxide	260	630

If "Preliminary Report" is displayed in the signature box; this indicates that there are samples that have not yet been analyzed, that are in a preliminary state, or that analysis is in progress but not completed at the time of report issue.

Report Date:	Report Revision	Revision Comments
9/5/2018	R0	Initial Report

Marjorie Howley, Laboratory Manager
or other approved signatory

Test results meet all NELAP requirements unless otherwise specified.

The samples associated with this report were received in good condition unless otherwise noted. This report relates only to those items tested as received by the laboratory. The results are not blank corrected unless otherwise noted. Interpretation and use of test results are the responsibility of the client. This report may not be reproduced except in full and without written approval by EMSL Analytical, Inc.

USEPA TO-15
External Chain of Custody/ Field Test Data Sheet

EMSL Analytical, Inc.
200 Route 130 North
Cinnaminson, NJ 08077
Ph. (800) 220-3675
Fax (856) 786-0327

EMSL ANALYTICAL, INC.

EMSL Order Number (Lab Use Only): 491800817

Report To Contact Name: Alex Green	Bill To Company:	Sampled By (Sign):
Company Name: S&R Environmental	Attention To: Same	Sampled By (Name): Alex Green
Address 1: 5801 Logan Street #200	Address 1:	Total # of Samples: 1
Address 2: Denver CO	Address 2:	Date Shipped: 8/31/18
Phone No.: 303-548-1175 Fax:	Phone No.: Fax:	Sample Collection Zip Code: 80202
Email Results To: alex@srenvironmental.com (consulting)	Project Name: EPA- 6th Floor	Purchase Order: 018613

Turnaround Time (in Business Days): ☐ 10 Day Standard ☐ 5 Day ☐ 4 Day ☐ 3 Day ☐ 2 Day ☒ 1 Day ☐ Other

Reporting Format: ☐ Results Only (Standard Lab Report) ☐ Full Deliverables (Surcharge may apply) ☐ Other

EMSL Sample Identifier	Client Field Sample Identification	Field Use - All Information Required! Sampling Start Information Barometric Pres. ("Hg): Start Date	Time (24 hr clock)	Canister Pressure ("Hg)	Interior Temp. (F)	Sampling Stop Information Barometric Pres. ("Hg): Stop Date	Time (24 hr clock)	Canister Pressure ("Hg)	Interior Temp. (F)	Lab Use Only Canister Information: Canister ID	Size (L)	Can Cert Batch ID	Outgoing Pressure ("Hg)	Incoming Pressure ("Hg)	Flow Contoller: Reg. ID	Cal Flow (ml/min)	Analysis: USEPA TO-15	NJDEP LLTO-15	LIBRARY SEARCH	Other (Specify)	Matrix: Indoor/ Ambient Air	Soil Gas	Landfill/ Vent
		8/31	9:30	24.5	72°	8-31-18	1330	0.0	72°	E0645	6	03627	-29.9	-7.8	6915	21.2	X		X		X		

Comments: Sample for CO & CO2

Lab Canister Certification
Analyst Signature (TO-15):

Relinquished by:	Date/ Time	Received by:	Date/ Time	Seal #/Intact
	8/27/18 1502		8/30/18	644
	8-31-2018 1500		9:4·18 10:30	645
			9/4/18 1324	

Reason for Exchange (circle appropriate)

(Shipping)	Courier	Receiving	Sampling	Other:
(Shipping)	Courier	Receiving	Sampling	Other:
Shipping	Courier	Receiving	Sampling	(Other:) AW
Shipping	Courier	Receiving	Sampling	Other:
Shipping	Courier	Receiving	Sampling	Other:

RECEIVED

FX 7955 5338 7143

Page __ of __

491800817

TO-FM-32 Sample Information
Revision 9
Effective Date: January 22, 2018

TO-15 Sample Information

Please fill out this worksheet in addition to the Chain of Custody form. This information helps us to best analyze your samples, achieve requested TAT, and provide you with helpful interpretation information.

Company: S&R ENVIRONMENTAL CONSULTING

Contact Person

Name: ALEX GREEN

E-mail: ALEX@SRENVIRONMENTALCONSULTING.COM

Additional E-mails:

Telephone #: ~~303-297-3965~~ 303-548-1175

2018 SEP -4 AM 11:06
RECEIVED
EMSL
CINNAMINSON, N.J.

Library Search requested: [X] YES [ ] NO
A library search (*aka Tentatively Identified Compounds*) will identify up to 20 of the largest, non-target peaks that are not part of the standard TO-15 list of 74 compounds. If you are performing an Indoor Air Quality or odor investigation, the library search is recommended to provide you with all available information for your sample.

Sample Type:

[X] Indoor Air Quality (Home/Office)
[ ] IAQ (Industrial)
[ ] Other:
[ ] Soil Gas/Sub Slab
Sample Description: _____

PLEASE NOTE: The result forms we provide will not indicate whether your results have exceeded any Exposure Limit criteria established by any regulatory agency. If you would like that information, please check off below which regulatory comparison forms you would like to receive.

[ ] OSHA PELs/NIOSH RELs	*combined form*		[ ] Potential Sources of Compounds found in your IAQ sample
[ ] EPA RSLs - *11/2017*	Residential	Industrial	[X] TVOC (Library Search Required for this format)
[ ] NJ DEP *1/2018* - Circle one:	VI-Indoor AQ	VI-Soil Gas	[ ] Ohio *4/2013* -Circle one: Residential Commercial
[ ] NC DENR *4/2014* -Circle one:	Residential	Non-residential	[ ] Indiana Dept Env Mgmt Screening Levels *1/2015*
[ ] PA DEP - *11/2016*	Indoor Air		[ ] Vermont DEP IROCP *4/2012* (soil gas only)
[ ] PA DEP- *11/2016*: Sub Slab Soil Gas OR Near Source Soil Gas			[ ] California OEHHA *2/2012*
[ ] CA HHSL *11/2004* -Circle one:	Indoor Air	Soil Gas	[ ] Other; these are the compounds I want reported:

Please note: There is an additional charge for any of the tests below. USEPA TO-3 AND ASTM 5504 analyses can be performed from your canister at the Cinnaminson NJ laboratory.

US EPA TO-3 *via GC/FID* (choose one below):
[ ] C_3-C_9 hydrocarbons
[ ] Methane only

ASTM-D5504 *via GC/SCD* (choose one below):*
[ ] Sulfur Scan (H_2S, COS, MeSH, EtSH, DMS)
[ ] H_2S only

***Note** : *Hold time for sulfur gases is 1 day from collection. Please schedule your sample collection so samples are received in the lab prior to noon on Friday. Analysis performed out of hold time will have a notation in the report.*

We can provide the following CMS tests from your canisters at the Cinnaminson and Huntington Beach laboratories. Please note these tests are to be used for IAQ/Screening purposes ONLY. EMSL recommends alternate field sampling techniques for these parameters (with the exception of water vapor); please contact your sales rep for the proper media. Please note: There is an additional charge for any of the tests below.

Dry Gas CMS Analytes:
[X] CO [X] CO_2 [ ] NH_3 [ ] O_2 [ ] Water Vapor

Sample Retention Policy: All canisters are guaranteed to be retained for one day after results are reported. Please review your results promptly to ensure your project scope is fully addressed. Cans may be retained for a longer period of time, but arrangements to hold your cans must be made through your customer account representative quickly. Thank you.

EMSL Analytical
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856)858-4800 / (856)858-4571
http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491800817**
Customer ID: **SREC85**
Customer PO: **18013**

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**

Project: **EPA - 6th Floor**

Date Collected: **8/31/2018**
Date Received: **9/4/2018**

Laboratory Report- Sample Summary

EMSL Sample ID.	Client Sample ID.	Start Sampling Date	Start Sampling Time
491800817-0001	#1	8/31/2018	9:30 AM

If "Preliminary Report" is displayed in the signature box; this indicates that there are samples that have not yet been analyzed, that are in a preliminary state, or that analysis is in progress but not completed at the time of report issue.

Report Date	Report Revision	Revision Comments
9/5/2018	R0	Initial Report

Marjorie Howley, Laboratory Manager
or other approved signatory

Test results meet all NELAP requirements unless otherwise specified.
NJDEP Certification #: 03036

The samples associated with this report were received in good condition unless otherwise noted. This report relates only to those items tested as received by the laboratory. The results are not blank corrected unless otherwise noted. Interpretation and use of test results are the responsibility of the client. This report may not be reproduced except in full and without written approval by EMSL Analytical, Inc.

EMSL Analytical
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856)858-4800 / (856)858-4571
http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491800817**
Customer ID: **SREC85**
Customer PO: **18013**

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**

Project: **EPA - 6th Floor**

Date Collected: **8/31/2018**
Date Received: **9/4/2018**

Case Narrative

Method Reference
USEPA: Compendium Method TO-15, “Determination of Volatile Organic Compounds (VOCs) in Air…" Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).

Column
Restek RTX-502.2, 60m, 0.25mm ID, 1.4um

Concentrator Traps:
Entech Dual Cold Traps: (1) 1/8” No Packing, (2) 1/8” Tenax.

Gas Standards:
Certified Gas standards were used for all analyses.

Sample Volumes:
Sample volume aliquots for this procedure are 250cc for indoor/ ambient air and 25cc for soil gas. Other volumes for sample dilutions are reflected on each result page.

Holding Times:
Standard holding times of 30 days were met for all samples.

Sampling Pressures:
All samples were received at acceptable pressure/vacuum unless listed below.

Sample Dilutions:
Diluitions reported are designated by the sample # with a "DL" suffix resulting from initial analysis having compounds exceeding calibration as reported with an "E" qualifier. Ethanol and Isopropanol are not diluted for and may be reported with an "E" qualifier on the final result.

QA/QC criteria outside method specifications are listed below (if applicable).

Initial Calibration
All Initial Calibratiion criteria met method specification.

Initial Calibration Verification Standard (ICVS)- Second Source
ICVS met method specification with 70-130% recovery for 100% of compounds.

Laboratory Control Sample (LCS)
LCS met method specification with 70-130% recovery for 100% of compounds.*(If the LCS does not meet criteria but any compounds which have recoveries >130% are not found in the samples, samples may be reported)*

Continuing Calibration Verification Standard (CCVS)
CCVS met method specification with all compounds within 30% deviation.

Ending Calibration Verification Standard (ECVS)
ECVS met method specification with all compounds within 30% deviation.

Method Blanks (MB)
Method Blank met method specification.

Reporting Limit Laboratory Control Samples (RLLCS)
RLLCS met method specification with 90% of compounds within the 60-140% recovery range. Individual compounds outside of the recovery range may be listed below.

EMSL Analytical
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856)858-4800 / (856)858-4571
http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491800817**
Customer ID: **SREC85**
Customer PO: **18013**

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**

Project: **EPA - 6th Floor**

Date Collected: **8/31/2018**
Date Received: **9/4/2018**

Case Narrative

Manual Integration *: -Listed below if applicable. Before and after documentation provided in extended deliverable packages.*

The following data qualifiers that may have been reported with the data,

ND- Non Detect. This notation would be used in the results column in lieu of a "U" qualifier.

U- Compound was analyzed for but not detected at a listed and appropriately adjusted reporting level.

J- Estimated value reported below adjusted reporting limit for target compounds or estimating a concentration for TICs where a 1:1 response is assumed

B- Compound found in associated method blank as well as in the sample.

E- Estimated value exceeding upper calibration range of instrument. Ethanol and isopropyl alcohol are not specifically targeted to dilute within calibration range.

D- Compound reported from additional diluted analysis.

N- indicates presumptive evidence of a compound based on library search match.

EMSL Analytical, Inc. certifies that this data package is in compliance with the terms and conditions of this contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer –readable data submitted on diskette has been authorized by the laboratory manager or his/her designee, as verified by the following signature.

Report Date	Report Revision	Revision Comments
9/5/2018	R0	Initial Report

Marjorie Howley, Laboratory Manager
or other approved signatory

Test results meet all NELAP requirements unless otherwise specified.

EMSL Analytical
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856)858-4800 / (856)858-4571
http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491800817**
EMSL Sample #: **491800817-1**
Customer ID: **SREC85**
Customer PO: **18013**

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**
Date Collected: **8/31/2018**
Date Received: **9/4/2018**

Project: **EPA - 6th Floor**
Sample ID: #1

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	09/04/2018	TP	K17112.D	E0645	322.5 cc	1

Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
Propylene	115-07-1	42.08	ND	1.0		ND	1.7	
Freon 12(Dichlorodifluoromethane)	75-71-8	120.9	ND	0.50		ND	2.5	
Freon 114(1,2-Dichlorotetrafluoroethan	76-14-2	170.9	ND	0.50		ND	3.5	
Chloromethane	74-87-3	50.49	**0.54**	0.50		**1.1**	1.0	
n-Butane	106-97-8	58.12	**2.5**	0.50		**5.9**	1.2	
Vinyl chloride	75-01-4	62.50	ND	0.50		ND	1.3	
1,3-Butadiene	106-99-0	54.09	ND	0.50		ND	1.1	
Bromomethane	74-83-9	94.94	ND	0.50		ND	1.9	
Chloroethane	75-00-3	64.52	ND	0.50		ND	1.3	
Ethanol	64-17-5	46.07	**32**	0.50		**60**	0.94	
Bromoethene(Vinyl bromide)	593-60-2	106.9	ND	0.50		ND	2.2	
Freon 11(Trichlorofluoromethane)	75-69-4	137.4	**0.55**	0.50		**3.1**	2.8	
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	**2.5**	0.50		**6.2**	1.2	
Freon 113(1,1,2-Trichlorotrifluoroethan	76-13-1	187.4	ND	0.50		ND	3.8	
Acetone	67-64-1	58.08	**6.5**	0.50		**15**	1.2	
1,1-Dichloroethene	75-35-4	96.94	ND	0.50		ND	2.0	
Acetonitrile	75-05-8	41.00	ND	0.50		ND	0.84	
Tertiary butyl alcohol(TBA)	75-65-0	74.12	ND	0.50		ND	1.5	
Bromoethane(Ethyl bromide)	74-96-4	108.0	ND	0.50		ND	2.2	
3-Chloropropene(Allyl chloride)	107-05-1	76.53	ND	0.50		ND	1.6	
Carbon disulfide	75-15-0	76.14	ND	0.50		ND	1.6	
Methylene chloride	75-09-2	84.94	ND	0.50		ND	1.7	
Acrylonitrile	107-13-1	53.00	ND	0.50		ND	1.1	
Methyl-tert-butyl ether(MTBE)	1634-04-4	88.15	ND	0.50		ND	1.8	
trans-1,2-Dichloroethene	156-60-5	96.94	ND	0.50		ND	2.0	
n-Hexane	110-54-3	86.17	**0.52**	0.50		**1.8**	1.8	
1,1-Dichloroethane	75-34-3	98.96	ND	0.50		ND	2.0	
Vinyl acetate	108-05-4	86.00	ND	0.50		ND	1.8	
2-Butanone(MEK)	78-93-3	72.10	**0.56**	0.50		**1.7**	1.5	
cis-1,2-Dichloroethene	156-59-2	96.94	ND	0.50		ND	2.0	
Ethyl acetate	141-78-6	88.10	**1.4**	0.50		**5.1**	1.8	
Chloroform	67-66-3	119.4	ND	0.50		ND	2.4	
Tetrahydrofuran	109-99-9	72.11	ND	0.50		ND	1.5	
1,1,1-Trichloroethane	71-55-6	133.4	ND	0.50		ND	2.7	
Cyclohexane	110-82-7	84.16	**0.80**	0.50		**2.8**	1.7	
2,2,4-Trimethylpentane(Isooctane)	540-84-1	114.2	ND	0.50		ND	2.3	
Carbon tetrachloride	56-23-5	153.8	ND	0.50		ND	3.1	
n-Heptane	142-82-5	100.2	ND	0.50		ND	2.0	
1,2-Dichloroethane	107-06-2	98.96	ND	0.50		ND	2.0	
Benzene	71-43-2	78.11	ND	0.50		ND	1.6	
Trichloroethene	79-01-6	131.4	ND	0.50		ND	2.7	
1,2-Dichloropropane	78-87-5	113.0	ND	0.50		ND	2.3	
Methyl Methacrylate	80-62-6	100.12	ND	0.50		ND	2.0	
Bromodichloromethane	75-27-4	163.8	ND	0.50		ND	3.3	
1,4-Dioxane	123-91-1	88.12	ND	0.50		ND	1.8	
4-Methyl-2-pentanone(MIBK)	108-10-1	100.2	ND	0.50		ND	2.0	

EMSL Analytical
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856)858-4800 / (856)858-4571
http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491800817**
EMSL Sample #: **491800817-1**
Customer ID: **SREC85**
Customer PO: **18013**

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**
Date Collected: **8/31/2018**
Date Received: **9/4/2018**

Project: **EPA - 6th Floor**

Sample ID: #1

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	09/04/2018	TP	K17112.D	E0645	322.5 cc	1

Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
cis-1,3-Dichloropropene	10061-01-5	111.0	ND	0.50		ND	2.3	
Toluene	108-88-3	92.14	**2.5**	0.50		**10**	1.9	
trans-1,3-Dichloropropene	10061-02-6	111.0	ND	0.50		ND	2.3	
1,1,2-Trichloroethane	79-00-5	133.4	ND	0.50		ND	2.7	
2-Hexanone(MBK)	591-78-6	100.1	ND	0.50		ND	2.0	
Tetrachloroethene	127-18-4	165.8	ND	0.50		ND	3.4	
Dibromochloromethane	124-48-1	208.3	ND	0.50		ND	4.3	
1,2-Dibromoethane	106-93-4	187.8	ND	0.50		ND	3.8	
Chlorobenzene	108-90-7	112.6	ND	0.50		ND	2.3	
Ethylbenzene	100-41-4	106.2	ND	0.50		ND	2.2	
Xylene (p,m)	1330-20-7	106.2	ND	1.0		ND	4.3	
Xylene (Ortho)	95-47-6	106.2	ND	0.50		ND	2.2	
Styrene	100-42-5	104.1	ND	0.50		ND	2.1	
Isopropylbenzene (cumene)	98-82-8	120.19	ND	0.50		ND	2.5	
Bromoform	75-25-2	252.8	ND	0.50		ND	5.2	
1,1,2,2-Tetrachloroethane	79-34-5	167.9	ND	0.50		ND	3.4	
4-Ethyltoluene	622-96-8	120.2	ND	0.50		ND	2.5	
1,3,5-Trimethylbenzene	108-67-8	120.2	ND	0.50		ND	2.5	
2-Chlorotoluene	95-49-8	126.6	ND	0.50		ND	2.6	
1,2,4-Trimethylbenzene	95-63-6	120.2	ND	0.50		ND	2.5	
1,3-Dichlorobenzene	541-73-1	147.0	ND	0.50		ND	3.0	
1,4-Dichlorobenzene	106-46-7	147.0	ND	0.50		ND	3.0	
Benzyl chloride	100-44-7	126.0	ND	0.50		ND	2.6	
1,2-Dichlorobenzene	95-50-1	147.0	ND	0.50		ND	3.0	
1,2,4-Trichlorobenzene	120-82-1	181.5	ND	0.50		ND	3.7	
Hexachloro-1,3-butadiene	87-68-3	260.8	ND	0.50		ND	5.3	
Naphthalene	91-20-3	128.17	ND	0.50		ND	2.6	
Total Target Compound Concentrations:			**50**	**ppbv**		**110**	**ug/m3**	

Surrogate	Result	Spike	Recovery
4-Bromofluorobenzene	10	10	100%

Qualifier Definitions

ND = Non Detect

B = Compound also found in method blank.

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air…" Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).

EMSL Analytical
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856)858-4800 / (856)858-4571
http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491800817**
EMSL Sample #: **491800817-1**
Customer ID: **SREC85**
Customer PO: **18013**

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**
Date Collected: **8/31/2018**
Date Received: **9/4/2018**

Project: **EPA - 6th Floor**
Sample ID: #1

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	09/04/2018	TP	K17112.D	E0645	322.5 cc	1

Tentatively Identified Compound Results Summary

Tentatively Identified Compounds	CAS#	MW(1)	Result ppbv	Q	Result ug/m3	Retention Time	Comments
Ethane, 1,1-difluoro-	000075-37-6	66	**1.7**	JN	**4.6**	5.52	
Butane, 2-methyl-	000078-78-4	72	**1.5**	JN	**4.4**	8.09	
unknown hydrocarbon		92	**1.0**	JN	**3.8**	17.50	
D-Limonene	005989-27-5	136	**5.2**	JN	**29**	29.08	
Total TIC Concentrations:			**9.4**	**ppbv**	**42**	**ug/m3**	

Qualifier Definitions

(1) = If unknown, MW is assigned as equivalent Toluene (92) for ug/m3 conversion purposes.

B = Compound also found in method blank.

J= Estimated value based on a 1:1 response to internal standard.

N= Presumptive evidence of compound based on library match.

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air…" Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).

EMSL Analytical
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856)858-4800 / (856)858-4571
http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491800817**
EMSL Sample #: **491800817-1**
Customer ID: **SREC85**
Customer PO: **18013**

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**
Date Collected: **8/31/2018**
Date Received: **9/4/2018**

Project: **EPA - 6th Floor**
Sample ID: #1

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	09/04/2018	TP	K17112.D	E0645	322.5 cc	1

Total Volatile Organic Compounds (TVOC) Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
Chloromethane	74-87-3	50.49	**0.54**	0.50		**1.1**	1.0	
n-Butane	106-97-8	58.12	**2.5**	0.50		**5.9**	1.2	
Ethanol	64-17-5	46.07	**32**	0.50		**60**	0.94	
Freon 11(Trichlorofluoromethane)	75-69-4	137.40	**0.55**	0.50		**3.1**	2.8	
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	**2.5**	0.50		**6.2**	1.2	
Acetone	67-64-1	58.08	**6.5**	0.50		**15**	1.2	
n-Hexane	110-54-3	86.17	**0.52**	0.50		**1.8**	1.8	
2-Butanone(MEK)	78-93-3	72.10	**0.56**	0.50		**1.7**	1.5	
Ethyl acetate	141-78-6	88.10	**1.4**	0.50		**5.1**	1.8	
Cyclohexane	110-82-7	84.16	**0.80**	0.50		**2.8**	1.7	
Toluene	108-88-3	92.14	**2.5**	0.50		**10**	1.9	
Total Target Compound Concentrations:			**50**	**ppbv**		**110**	**ug/m3**	

Qualifier Definitions

B = Compound also found in method blank.

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.

Tentatively Identified Compounds	CAS#	MW(1)	Result ppbv		Q	Result ug/m3	Retention Time	Comments
Ethane, 1,1-difluoro-	000075-37-6	66	**1.7**		JN	**4.6**	5.52	
Butane, 2-methyl-	000078-78-4	72	**1.5**		JN	**4.4**	8.09	
unknown hydrocarbon		92	**1.0**		JN	**3.8**	17.5	
D-Limonene	005989-27-5	136	**5.2**		JN	**29**	29.08	
Total TIC Concentrations:			**9.4**	**ppbv**		**42**	**ug/m3**	

Qualifier Definitions

(1) = If unknown, MW is assigned as equivalent Toluene (92) for ug/m3 conversion purposes.

B = Compound also found in method blank.

J= Estimated value based on a 1:1 response to internal standard.

N= Presumptive evidence of compound based on library match.

Total Volatile Organic Compounds (TVOCs):	59	ppbv	150	ug/m3

USEPA TO-15
External Chain of Custody/ Field Test Data Sheet

EMSL Analytical, Inc.
200 Route 130 North
Cinnaminson, NJ 08077
Ph. (800) 220-3675
Fax (856) 786-0327

EMSL ANALYTICAL, INC.

EMSL Order Number (Lab Use Only): 491800817

Report To Contact Name: Alex Green	Bill To Company:	Sampled By (Sign):
Company Name: S&R Environmental	Attention To: Same	Sampled By (Name): Alex Green
Address 1: 5801 Logan Street #200	Address 1:	Total # of Samples: 1
Address 2: Denver CO	Address 2:	Date Shipped: 8/31/18
Phone No.: 303-548-1175 Fax:	Phone No.: Fax:	Sample Collection Zip Code: 80202
Email Results To: alex@srenvironmental.com (consulting)	Project Name: EPA- 6th Floor	Purchase Order: 018613

Turnaround Time (in Business Days): ☐ 10 Day Standard ☐ 5 Day ☐ 4 Day ☐ 3 Day ☐ 2 Day ☒ 1 Day ☐ Other

Reporting Format: ☐ Results Only (Standard Lab Report) ☐ Full Deliverables (Surcharge may apply) ☐ Other

EMSL Sample Identifier	Client Field Sample Identification	Field Use - All Information Required! Sampling Start Information Barometric Pres. ("Hg): Start Date	Time (24 hr clock)	Canister Pressure ("Hg)	Interior Temp. (F)	Sampling Stop Information Barometric Pres. ("Hg): Stop Date	Time (24 hr clock)	Canister Pressure ("Hg)	Interior Temp. (F)	Lab Use Only Canister Information: Canister ID	Size (L)	Can Cert Batch ID	Outgoing Pressure ("Hg)	Incoming Pressure ("Hg)	Flow Contoller: Reg. ID	Cal Flow (ml/min)	Analysis: USEPA TO-15	NJDEP LLTO-15	LIBRARY SEARCH	Other (Specify)	Matrix: Indoor/ Ambient Air	Soil Gas	Landfill/ Vent
		8/31	9:30	24.5	72°	8-31-18	1330	0.0	72°	E0645	6	03627	-29.9	-7.8	6915	21.2	X		X		X		

Comments: Sample for CO & CO2

Lab Canister Certification
Analyst Signature (TO-15):

Relinquished by:	Date/ Time	Received by:	Date/ Time	Seal #/Intact
	8/27/18 1502		8/30/18	644
	8-31-2018 1500		9:4·18 10:30	645
			9/4/18 1324	

Reason for Exchange (circle appropriate)

Shipping Courier Receiving Sampling Other:
Shipping Courier Receiving Sampling Other:
Shipping Courier Receiving Sampling Other: AW
Shipping Courier Receiving Sampling Other:
Shipping Courier Receiving Sampling Other:

FX 7955 5338 7143

Page __ of __

8 of 9

491800817

TO-FM-32 Sample Information
Revision 9
Effective Date: January 22, 2018

TO-15 Sample Information

Please fill out this worksheet in addition to the Chain of Custody form. This information helps us to best analyze your samples, achieve requested TAT, and provide you with helpful interpretation information.

Company: S&R ENVIRONMENTAL CONSULTING

Contact Person

Name: ALEX GREEN

E-mail: ALEX@SRENVIRONMENTALCONSULTING.COM

Additional E-mails:

Telephone #: ~~303-297-3965~~ 303-548-1175

2018 SEP -4 AM 11:06
RECEIVED
EMSL
CINNAMINSON, N.J.

Library Search requested: [X] YES [ ] NO
A library search (*aka Tentatively Identified Compounds*) will identify up to 20 of the largest, non-target peaks that are not part of the standard TO-15 list of 74 compounds. If you are performing an Indoor Air Quality or odor investigation, the library search is recommended to provide you with all available information for your sample.

Sample Type:

[X] Indoor Air Quality (Home/Office) [ ] Soil Gas/Sub Slab
[ ] IAQ (Industrial)
[ ] Other:
Sample Description: _____

PLEASE NOTE: The result forms we provide will not indicate whether your results have exceeded any Exposure Limit criteria established by any regulatory agency. If you would like that information, please check off below which regulatory comparison forms you would like to receive.

[ ] OSHA PELs/NIOSH RELs	*combined form*		[ ] Potential Sources of Compounds found in your IAQ sample
[ ] EPA RSLs - *11/2017*	Residential	Industrial	[X] TVOC (Library Search Required for this format)
[ ] NJ DEP *1/2018* - Circle one:	VI-Indoor AQ	VI-Soil Gas	[ ] Ohio *4/2013* -Circle one: Residential Commercial
[ ] NC DENR *4/2014* -Circle one:	Residential	Non-residential	[ ] Indiana Dept Env Mgmt Screening Levels *1/2015*
[ ] PA DEP - *11/2016*	Indoor Air		[ ] Vermont DEP IROCP *4/2012* (soil gas only)
[ ] PA DEP- *11/2016*: Sub Slab Soil Gas OR Near Source Soil Gas			[ ] California OEHHA *2/2012*
[ ] CA HHSL *11/2004* -Circle one:	Indoor Air	Soil Gas	[ ] Other; these are the compounds I want reported:

Please note: There is an additional charge for any of the tests below. USEPA TO-3 AND ASTM 5504 analyses can be performed from your canister at the Cinnaminson NJ laboratory.

US EPA TO-3 *via GC/FID* (choose one below):

[ ] C_3-C_8 hydrocarbons
[ ] Methane only

ASTM-D5504 *via GC/SCD* (choose one below):*

[ ] Sulfur Scan (H_2S, COS, MeSH, EtSH, DMS)
[ ] H_2S only

***Note** : Hold time for sulfur gases is 1 day from collection. Please schedule your sample collection so samples are received in the lab prior to noon on Friday. Analysis performed out of hold time will have a notation in the report.*

We can provide the following CMS tests from your canisters at the Cinnaminson and Huntington Beach laboratories. Please note these tests are to be used for IAQ/Screening purposes ONLY. EMSL recommends alternate field sampling techniques for these parameters (with the exception of water vapor); please contact your sales rep for the proper media. Please note: There is an additional charge for any of the tests below.

Dragger CMS Analyses:
[X] CO [X] CO_2 [ ] NH_3 [ ] O_2 [ ] Water Vapor

Sample Retention Policy: All canisters are guaranteed to be retained for one day after results are reported. Please review your results promptly to ensure your project scope is fully addressed. Cans may be retained for a longer period of time, but arrangements to hold your cans must be made through your customer account representative quickly. Thank you.

USEPA TO-15
External Chain of Custody/ Field Test Data Sheet

EMSL Analytical, Inc.
200 Route 130 North
Cinnaminson, NJ 08077
Ph. (800) 220-3675
Fax (856) 786-0327

EMSL ANALYTICAL, INC.

EMSL Order Number (Lab Use Only): 491800817

Report To Contact Name: Alex Green	Bill To Company:	Sampled By (Sign):
Company Name: S&R Environmental	Attention To: Same	Sampled By (Name): Alex Green
Address 1: 5801 Logan Street #200	Address 1:	Total # of Samples: 1
Address 2: Denver CO	Address 2:	Date Shipped: 8/31/18
Phone No.: 303-548-1175 Fax:	Phone No.: Fax:	Sample Collection Zip Code: 80202
Email Results To: alex@srenvironmentalconsulting.com	Project Name: EPA- 6th floor	Purchase Order: 018013

Turnaround Time (In Business Days): ☐ 10 Day Standard ☐ 5 Day ☐ 4 Day ☐ 3 Day ☐ 2 Day ☒ 1 Day ☐ Other

Reporting Format: ☐ Results Only (Standard Lab Report) ☐ Full Deliverables (Surcharge may apply) ☐ Other

EMSL Sample Identifier	Client Field Sample Identification	Field Use - All Information Required! Sampling Start Information Barometric Pres. ("Hg): Start Date	Time (24 hr clock)	Canister Pressure ("Hg)	Interior Temp. (F)	Sampling Stop Information Barometric Pres. ("Hg): Stop Date	Time (24 hr clock)	Canister Pressure ("Hg)	Interior Temp. (F)	Lab Use Only Canister Information: Canister ID	Size (L)	Can Cert Batch ID	Outgoing Pressure ("Hg)	Incoming Pressure ("Hg)	Flow Contoller: Reg. ID	Cal Flow (ml/min)	Analysis: USEPA TO-15	NJDEP LLTO-15	LIBRARY SEARCH	Other (Specify)	Matrix: Indoor/ Ambient Air	Soil Gas	Landfill/ Vent
		8/31	9:30	24.5	72°	8-31-18	1330	0.0	72°	E0645	6	03627	-29.9		6915	21.2	X		X		X		

Comments: Sample for CO & CO2

Lab Canister Certification
Analyst Signature (TO-15):

Relinquished by:	Date/ Time	Received by:	Date/ Time	Seal #/Intact	Reason for Exchange (circle appropriate)
[illegible]	8/27/18 1502	[illegible]	8/30/18	644	(Shipping) Courier Receiving Sampling Other:
[illegible]	8-31-2018 1500	[illegible]	9-4-18 1030	645	(Shipping) Courier Receiving Sampling Other:
					Shipping Courier Receiving Sampling Other:
					Shipping Courier Receiving Sampling Other:
					Shipping Courier Receiving Sampling Other:

FX 7955 5338 7143

RECEIVED

-491800817

TO-EM-12 Sample Information
Revision 9
Effective Date: January 22, 2018

TO-15 Sample Information

Please fill out this worksheet in addition to the Chain of Custody form. This information helps us to best analyze your samples, achieve requested TAT, and provide you with helpful interpretation information.

Company: S&R ENVIRONMENTAL CONSULTING

Contact Person:

Name: ALEX GREEN

E-mail: ALEX@SRENVIRONMENTALCONSULTING.COM

Additional E-mails:

Telephone #: ~~303-297-3965~~ 303-548-1175

RECEIVED
EMSL
CINNAMINSON, N.J.
2018 SEP -4 AM 11:06

Library Search requested: [X] YES [ ] NO
A library search (*aka Tentatively Identified Compounds*) will identify up to 20 of the largest, non-target peaks that are not part of the standard TO-15 list of 74 compounds. If you are performing an Indoor Air Quality or odor investigation, the library search is recommended to provide you with all available information for your sample.

Sample Type:

[X] Indoor Air Quality (Home/Office)
[ ] IAQ (Industrial)
[ ] Other:
[ ] Soil Gas/Sub Slab

Sample Description: _____

PLEASE NOTE: The result forms we provide will not indicate whether your results have exceeded any Exposure Limit criteria established by any regulatory agency. If you would like that information, please check off below which regulatory comparison forms you would like to receive.

[ ] OSHA PELs/NIOSH RELs	combined form		[ ] Potential Sources of Compounds found in your IAQ sample		
[ ] EPA RSLs - *11/2017*	Residential	Industrial	[X] TVOC (Library Search Required for this format)		
[ ] NJ DEP *1/2018* - Circle one:	VI-Indoor AQ	VI-Soil Gas	[ ] Ohio *4/2013* - Circle one:	Residential	Commercial
[ ] NC DENR *4/2014* - Circle one:	Residential	Non-residential	[ ] Indiana Dept Env Mgmt Screening Levels *1/2018*		
[ ] PA DEP - *11/2016*	Indoor Air		[ ] Vermont DEP IROCP *4/2012* (soil gas only)		
[ ] PA DEP - *11/2016*: Sub Slab Soil Gas OR Near Source Soil Gas			[ ] California OEHHA *2/2012*		
[ ] CA HHSL *11/2009* - Circle one:	Indoor Air	Soil Gas	[ ] Other; these are the compounds I want reported:		

Please note: There is an additional charge for any of the tests below. USEPA TO-3 AND ASTM 5504 analyses can be performed from your canister at the Cinnaminson NJ laboratory.

US EPA TO-3 via GC/FID (choose one below):

[ ] C_1-C_6 hydrocarbons
[ ] Methane only

ASTM-D5504 via GC/ICP (choose one below):

[ ] Sulfur Scan (H_2S, COS, MeSH, EtSH, DMS)
[ ] H_2S only

***Note**: Hold time for sulfur gases is 1 day from collection. Please schedule your sample collection so samples are received in the lab prior to noon on Friday. Analysis performed out of hold time will have a notation in the report.*

We can provide the following CMS tests from your canisters at the Cinnaminson and Huntington Beach laboratories. Please note these tests are to be used for IAQ/Screening purposes ONLY. EMSL recommends alternate field sampling techniques for these parameters (with the exception of water vapor); please contact your sales rep for the proper media. Please note: There is an additional charge for any of the tests below.

Dry Air CMS Analytes:
[X] CO [X] CO_2 [ ] NH_3 [ ] O_2 [ ] Water Vapor

Sample Retention Policy: All canisters are guaranteed to be retained for one day after results are reported. Please review your results promptly to ensure your project scope is fully addressed. Cans may be retained for a longer period of time, but arrangements to hold your cans must be made through your customer account representative quickly. Thank you.

Wisconsin Occupational Health Laboratory
WISCONSIN STATE LABORATORY OF HYGIENE
UNIVERSITY OF WISCONSIN-MADISON

2601 Agriculture Drive
Madison, WI 53718
Phone: (800) 446-0403
Fax: (608) 224-6213
Web: wohl-lab.org

ALEX GREEN

S & R ENVIRONMENTAL CONSULTING

STE 200

5801 LOGAN ST

DENVER, CO 80216

Lab Workorder ID	404567
Visit/Project ID	EPA/BOOTS
PO	018013
Received	September 4, 2018
Reported	September 10, 2018
Report ID	5719721
Previous Report IDs	

Dear ALEX GREEN:

Enclosed are the analytical results for sample(s) received by the laboratory on September 4, 2018. All samples received were acceptable, results were not blank corrected, and all quality control met laboratory standards unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact the lab.

Sincerely,

Steve Strebel, Laboratory Director

Analyst - JOHN GLOWACKI

Wisconsin Occupational Health Laboratory
WISCONSIN STATE LABORATORY OF HYGIENE
UNIVERSITY OF WISCONSIN-MADISON

2601 Agriculture Drive
Madison, WI 53718
Phone: (800) 446-0403
Fax: (608) 224-6213
Web: www.wohl-lab.org

Final Report

Lab ID: **404567001**	Sample ID: **6-CL-CAP**	Media: **OVS-7 TUBE**
Sampling Date: **8/31/2018**	Matrix: **Air**	Sampled Time:

						RESULT			
Analyte	**Method**	**Analysis Date**	**Air Volume**	**Reporting Limit**	**Front**	**Rear**	**Total**	**Air Concentration**	**TWA**
Caprolactam (Dust and Vapor)	OSHA PV2012	9/7/2018	100 L	1.5 ug	<1.5 ug	<1.5 ug	<1.5 ug	<0.015 mg/m3	

Abbreviations:
mg = milligrams ppm or ppmv = parts per million /m3 = per cubic meter
ug = micrograms ppb or ppbv = parts per billion ng = nanograms
< Less Than. The analyte, if present, is at a level too low to be accurately quantitated by the method used

End of Analytical Report

The results in this report apply only to the samples, specifically listed above, and tested at the Wisconsin Occupational Health Laboratory

DCM SCIENCE LABORATORY, INC.
12421 W. 49TH AVENUE, UNIT #6
WHEAT RIDGE, CO 80033 - (303) 463-8270

NUISANCE DUST - TOTAL/RESPIRABLE

NIOSH 0500/0600 METHOD(S) - PAGE 1 OF 1

CLIENT:
S&R ENVIRONMENTAL CONSULTING
5801 LOGAN STREET, SUITE 200
DENVER, CO 80216

ANALYSIS DATE: 9-4-18
REPORTING DATE: 9-4-18
RECEIPT DATE: 8-31-18
CLIENT JOB NO.: 018013
PROJECT TITLE: EPA - 6TH FLOOR
DCMSL PROJECT: SREC820

DCM NO.	CLIENT NUMBER	VOLUME (L)	DUST (1) (mg)	NUISANCE DUST TOTAL/RESPIRABLE (1) (mg/m3)
-1R	175555/6-CL-RD	200	0.001	0.005
-2R	175569/6-CL-TD	100	<0.001	-

(1) DUST IS CONSIDERED RESPIRABLE BASED ON SAMPLING METHOD. SAMPLES MUST BE COLLECTED USING A CYCLONE DEVICE.

THE SAMPLES WERE ANALYZED USING THE NIOSH 0500/0600 METHOD(S). PREWEIGHED FILTERS WERE POST WEIGHED TO DETERMINE TOTAL NUISANCE DUST COLLECTED ON THE FILTERS. THE COEFFICIENT OF VARIATION OF THIS METHOD AS STATED BY NIOSH 0500 IS 0.043 TO 0.145 FOR A RANGE OF 0.30mg TO 2.00mg PER SAMPLE. THE RANGE STUDIED IN THIS METHOD IS 0.5 TO 10mg/m3.

THE SAMPLES WERE WEIGHED WITH A METTLER XP56 ANALYTICAL MICROBALANCE WITH A REPORTING LIMIT OF ±0.006mg. THE BALANCE IS CERTIFIED TO BE WITHIN INSTRUMENT SPECIFICATIONS AND TRACEABLE TO NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY.

THE RESULTS ARE BLANK CORRECTED.

THE SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION. THIS TEST REPORT RELATES ONLY TO THE ITEMS TESTED. THIS REPORT MAY NOT BE REPRODUCED EXCEPT IN FULL WITHOUT THE WRITTEN APPROVAL OF THE LABORATORY.

INDUSTRIAL HYGIENE Accredited Laboratory ISO/IEC 17025:2005 AIHA LAP, LLC AIHAACCREDITEDLABS.ORG Lab ID # 101526

Jason Barnes

JASON BARNES, ANALYST

DCM
S·C·I·E·N·C·E LABORATORY INC.
12421 W. 49th Avenue, Unit #6
Wheat Ridge, CO 80033

(303) 463-8270 (800) 852-7340
(303) 463-8267 – fax

Date/Time Received _____ DCMSL Group No. _____ DCMSL Log No. _____

Field Data Sheet/Chain of Custody

Samples Submitted By:
Company: ~~A~~ S&K Enviro
Address:

Job/P.O. # 018013

Project Title EPA - 5th Floor

Contact: Alex Green
Phone:
Cell: 307-548-1175
Email: to Alex

Archive: Asbestos samples are archived for 6 months unless other arrangements are made. All other samples are archived for 3 months.

Turnaround Time Requested:
[ ] Standard (3 to 5 Business Days)
[X] 24 Hour Rush
[ ] 2 Hour Rush (Asbestos Only)
[ ] Other _____

Procedure Requested:

ASBESTOS
Bulk [ ] Standard EPA
[ ] Progressive
[ ] Point Count
[ ] Other
Air [ ] NIOSH 7400
[ ] OSHA ID-160
[ ] Other

DUST & SILICA
[ ] Silica – Air NIOSH 7500
[ ] Silica – Bulk
[ ] Silica – Bulk Respirable
[X] Dust – NIOSH 0500/0600

OTHER SERVICES
[ ] Optical Microscopy
[ ] X-ray Diffraction – Scan/Search
[ ] X-ray Diffraction – Clay/Bulk
[ ] SEM

Other Analysis: RD = NIOSH 0600 need
TD = NIOSH 0500 wed. apt.

	Client Sample No.:	Sample Date	Air Volume	Other Information
1	5-CL-RD	8/31/18	200	5th Floor
2	5-CL-TD	"	100	"
3				
4				
5				
6				
7				
8				
9				
10				

Relinquished By: _____ Date/Time 8/31/18
Received By: W Downey Date/Time 8/31/18 3:20

EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077
Phone/Fax: (800) 220-3675 /
http://www.EMSL.com / IndustrialHygienelab@emsl.com

EMSL Order ID:	281805147
Customer ID:	SREC85
Customer PO:	018013
Project ID:	

Attn: Alex Green
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: (303) 297-1645
Fax: (303) 297-1646
Collected:
Received: 11/12/2018
Analyzed: 11/12/2018

Proj: EPA - Floor 7 - Clearance

Test Report:Formaldehyde Analysis by HPLC of Solid Sorbent Tubes via NIOSH 2016, Issue 2, 3/15/03 modified

Sample ID	Identification	Volume	Sample Weight	Sample Concentration		Reporting Limit
7-CL-Form 281805147-0001	EPA - Floor 7 - Clearance	24 L	0.10 µg	0.0043 mg/m³	0.0035 ppm	0.0021 mg/m³
Media Blank		N/A	<0.050 µg	<0.050 µg	N/A	N/A

N/A = Not Applicable

Analyst(s)
Thomas Cancglin

Scott Van Etten, CIH, Laboratory Manager

Any questions please contact Scott VanEtten.

Initial report from: 11/13/2018 14:38:28

1. Samples were received in acceptable condition unless otherwise noted.
2. These results relate only to the samples tested.
3. Sample results are blank corrected. Reporting Limits for samples without volumes, such as Field Blanks, are 0.050 ug.
4. A discernable Field Blank was submitted if listed above as a discrete sample.

Samples analyzed by EMSL Analytical - Industrial Hygiene Cinnaminson, NJ AIHA-LAP, LLC--IHLAP Accred. Lab 100194

EMSL ANALYTICAL, INC.

Industrial Hygiene Chain of Custody

EMSL Order Number (Lab Use Only): 281805147

EMSL ANALYTICAL, INC.
200 ROUTE 130 NORTH
CINNAMINSON, NJ 08077
PHONE: (800) 220-3675
FAX: (856) 858-3502

Report To Contact Name: Alex Green	Bill To Company: SAME		Client ID #:
Company Name: S&R Environmental Consulting	Attention To:		
Street: 5801 Logan St. #200	Street:		
City: Denver State/Province: CO Zip/Postal Code: 80216	City:	State/Province:	Zip/Postal Code:
Phone: 303-548-1175 Fax:	Phone:	Fax:	
Project Name: EPA - Floor 7 - Clearance	Email Results To: alex@srenvironmental consulting.com	U.S. State where Samples Collected: CO	
# Samples in Shipment: 2 Date of Shipment: 11/9/18	Purchase Order: 018013	Sampled By (Signature):	

Turnaround Time (TAT) – Please Check: If No Selection Made, Standard 2 Week TAT Will Apply
☐ 2 Week ☐ 1 Week ☐ 4 Day ☐ 3 Day ☐ 2 Day ☒ 1 Day ☐ Other (Call Lab)

Media Type: Various
Manufacturer/Part #: Lot #:

Client Sample ID	Location/Description	Analyte / Method	Media	Flow (lpm)	Sample Time On	Sample Time Off	Volume / Area	Sample Type	Sample Date	Comments
[redacted]								☒ Area ☐ Personal	11/9/18	
7-CL-4PCH		OSHA-CS1	Sorbent tube				24 L	☒ Area ☐ Personal		
7-CL-FORM	↓	NIOSH 2016	"				24 L	☒ Area ☐ Personal	↓	
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		

Note: Most NIOSH and OSHA methods require field blanks. It is the IH field sampler's responsibility to submit the proper number of field blanks and duplicates.

Released By	Date	Received By	Date
	11/9/18	Bob UPS 1020	11/12/18

Comments:

RECEIVED EMSL CINNAMINSON, NJ 2018 NOV 12 A 10:19

EMSL Analytical, Inc. 200 Route 130 North, Cinnaminson, NJ 08077

Order ID: 281805148

Attn:	Alex Green S&R Environmental Consulting, Inc. 5801 Logan Street, #200 Denver, CO 80216	Customer ID: Customer PO: Date Received:	SREC85 018013 11/12/2018
		EMSL Order:	281805148
Project:	**EPA – Floor 7 - Clearance**	EMSL Project ID:	
Report Date:	11/13/2018	Date Analyzed:	11/12/2018

Test Report – 4-Phenylcyclohexene Analysis by GC/FID via Modified OSHA CSI Method

Sample ID	Identification	Sample Volume (L)	Sample Weight (µg)	Sample Conc. (µg/m^3)	Reporting Limit (µg/m^3)
281805148-0001	7-CL-4PCH	24	<0.030	<1.3	1.3
Desorption Blank	-	0	<0.030	ND	NA

Notes:
1. Samples were received in acceptable condition unless otherwise noted.
2. These results relate only to the samples tested.
3. Sample results are not blank corrected unless otherwise noted.
4. Discernable field blank(s) submitted with samples if reported above.

TC
Analyst

Scott VanEtten, CIH- Lab Manager
Or other approved signatory

EMSL ANALYTICAL, INC.

Industrial Hygiene Chain of Custody

EMSL Order Number (Lab Use Only): 281805148

EMSL ANALYTICAL, INC.
200 ROUTE 130 NORTH
CINNAMINSON, NJ 08077
PHONE: (800) 220-3675
FAX: (856) 858-3502

Report To Contact Name: Alex Green	Bill To Company: SAME	Client ID #:
Company Name: S&R Environmental Consulting	Attention To:	
Street: 5801 Logan St. #200	Street:	
City: Denver State/Province: CO Zip/Postal Code: 80216	City: State/Province: Zip/Postal Code:	
Phone: 307-548-1175 Fax:	Phone: Fax:	
Project Name: EPA - Floor 7 - Clearance	Email Results To: alex@sienvironmental consulting.com	U.S. State where Samples Collected: CO
# Samples in Shipment: 2 Date of Shipment: 11/9/18	Purchase Order: 018013	Sampled By (Signature):

Turnaround Time (TAT) – Please Check: If No Selection Made, Standard 2 Week TAT Will Apply

☐ 2 Week ☐ 1 Week ☐ 4 Day ☐ 3 Day ☐ 2 Day ☒ 1 Day ☐ Other (Call Lab)

Media Type: Various

Manufacturer/Part #: Lot #:

Client Sample ID	Location/Description	Analyte / Method	Media	Flow (lpm)	Sample Time On	Sample Time Off	Volume / Area	Sample Type	Sample Date	Comments
[redacted]										
7-CL-4PCH		OSHA-CS1	Sorbent tube				24 L	☒ Area ☐ Personal		
7-CL-FORM	↓	NIOSH 2016	"				24 L	☒ Area ☐ Personal	↓	
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		

Note: Most NIOSH and OSHA methods require field blanks. It is the IH field sampler's responsibility to submit the proper number of field blanks and duplicates.

Released By	Date	Received By	Date
	11/9/18	Bob UPS 1020	11/12/18

Comments:

EMSL Analytical
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856)858-4800 / (856)858-4571
http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491801100**
Customer ID: **SREC85**
Customer PO: **18013**

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Project: **EPA - Floor 7 Clearance**

Phone: **303-297-1645**
Fax: **303-297-1646**
Date Collected: **11/9/2018**
Date Received: **11/12/2018**
Date Analyzed: **11/12/2018**
Analyst: **Tracy Peters**

Fixed Gas Analysis by Using The Draeger CMS (Chip Measurement System)
Laboratory Report- Sample Summary

Sample ID.	Identification	Compound	Detection Limit (ppmV)	Sample Result (ppmV)
491801100-0001	CL7-TO15	Carbon monoxide	6.6	<6.6
491801100-0001	CL7-TO15	Carbon dioxide	260	530

If "Preliminary Report" is displayed in the signature box; this indicates that there are samples that have not yet been analyzed, that are in a preliminary state, or that analysis is in progress but not completed at the time of report issue.

Report Date:	Report Revision	Revision Comments
11/13/2018	R0	Initial Report

Marjorie Howley, Laboratory Manager
or other approved signatory

Test results meet all NELAP requirements unless otherwise specified.

The samples associated with this report were received in good condition unless otherwise noted. This report relates only to those items tested as received by the laboratory. The results are not blank corrected unless otherwise noted. Interpretation and use of test results are the responsibility of the client. This report may not be reproduced except in full and without written approval by EMSL Analytical, Inc.

EMSL Analytical
200 Route 130 North, Cinnaminson, NJ 08077
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EMSL Order #: **491801100**
Customer ID: **SREC85**
Customer PO: **18013**

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**

Project: **EPA - Floor 7 Clearance**

Date Collected: **11/9/2018**
Date Received: **11/12/2018**

Laboratory Report- Sample Summary

EMSL Sample ID.	Client Sample ID.	Start Sampling Date	Start Sampling Time
491801100-0001	CL7-TO15	11/9/2018	10:15 AM

If "Preliminary Report" is displayed in the signature box; this indicates that there are samples that have not yet been analyzed, that are in a preliminary state, or that analysis is in progress but not completed at the time of report issue.

Report Date	Report Revision	Revision Comments
11/13/2018	R0	Initial Report

Marjorie Howley

Marjorie Howley, Laboratory Manager
or other approved signatory

Test results meet all NELAP requirements unless otherwise specified.
NJDEP Certification #: 03036

The samples associated with this report were received in good condition unless otherwise noted. This report relates only to those items tested as received by the laboratory. The results are not blank corrected unless otherwise noted. Interpretation and use of test results are the responsibility of the client. This report may not be reproduced except in full and without written approval by EMSL Analytical, Inc.

EMSL Analytical
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EMSL Order #: **491801100**
Customer ID: **SREC85**
Customer PO: **18013**

Attn: **Alex Green**
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5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**

Project: **EPA - Floor 7 Clearance**

Date Collected: **11/9/2018**
Date Received: **11/12/2018**

Case Narrative

Method Reference
USEPA: Compendium Method TO-15, “Determination of Volatile Organic Compounds (VOCs) in Air…" Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).

Column
Restek RTX-502.2, 60m, 0.25mm ID, 1.4um

Concentrator Traps:
Entech Dual Cold Traps: (1) 1/8” No Packing, (2) 1/8” Tenax.

Gas Standards:
Certified Gas standards were used for all analyses.

Sample Volumes:
Sample volume aliquots for this procedure are 250cc for indoor/ ambient air and 25cc for soil gas. Other volumes for sample dilutions are reflected on each result page.

Holding Times:
Standard holding times of 30 days were met for all samples.

Sampling Pressures:
All samples were received at acceptable pressure/vacuum unless listed below.

Sample Dilutions:
Diluitions reported are designated by the sample # with a "DL" suffix resulting from initial analysis having compounds exceeding calibration as reported with an "E" qualifier. Ethanol and Isopropanol are not diluted for and may be reported with an "E" qualifier on the final result.

QA/QC criteria outside method specifications are listed below (if applicable).

Initial Calibration
All Initial Calibratiion criteria met method specification.

Initial Calibration Verification Standard (ICVS)- Second Source
ICVS met method specification with 70-130% recovery for 100% of compounds.

Laboratory Control Sample (LCS)
LCS met method specification with 70-130% recovery for 100% of compounds.*(If the LCS does not meet criteria but any compounds which have recoveries >130% are not found in the samples, samples may be reported)*

Continuing Calibration Verification Standard (CCVS)
CCVS met method specification with all compounds within 30% deviation.

Ending Calibration Verification Standard (ECVS)
ECVS met method specification with all compounds within 30% deviation.

Method Blanks (MB)
Method Blank met method specification.

Reporting Limit Laboratory Control Samples (RLLCS)
RLLCS met method specification with 90% of compounds within the 60-140% recovery range. Individual compounds outside of the recovery range may be listed below.

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Customer ID: **SREC85**
Customer PO: **18013**

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Phone: **303-297-1645**
Fax: **303-297-1646**

Project: **EPA - Floor 7 Clearance**

Date Collected: **11/9/2018**
Date Received: **11/12/2018**

Case Narrative

Manual Integration *: -Listed below if applicable. Before and after documentation provided in extended deliverable packages.*

The following data qualifiers that may have been reported with the data,

ND- Non Detect. This notation would be used in the results column in lieu of a "U" qualifier.

U- Compound was analyzed for but not detected at a listed and appropriately adjusted reporting level.

J- Estimated value reported below adjusted reporting limit for target compounds or estimating a concentration for TICs where a 1:1 response is assumed

B- Compound found in associated method blank as well as in the sample.

E- Estimated value exceeding upper calibration range of instrument. Ethanol and isopropyl alcohol are not specifically targeted to dilute within calibration range.

D- Compound reported from additional diluted analysis.

N- indicates presumptive evidence of a compound based on library search match.

EMSL Analytical, Inc. certifies that this data package is in compliance with the terms and conditions of this contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer –readable data submitted on diskette has been authorized by the laboratory manager or his/her designee, as verified by the following signature.

Report Date	Report Revision	Revision Comments
11/13/2018	R0	Initial Report

Marjorie Howley, Laboratory Manager
or other approved signatory

Test results meet all NELAP requirements unless otherwise specified.

EMSL Analytical
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856)858-4800 / (856)858-4571
http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491801100**
EMSL Sample #: **491801100-1**
Customer ID: **SREC85**
Customer PO: **18013**

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**
Date Collected: **11/9/2018**
Date Received: **11/12/2018**

Project: **EPA - Floor 7 Clearance**

Sample ID: CL7-TO15

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	11/12/2018	TP	K17886.D	HD2770	330 cc	1

Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
Propylene	115-07-1	42.08	ND	1.0		ND	1.7	
Freon 12(Dichlorodifluoromethane)	75-71-8	120.9	ND	0.50		ND	2.5	
Freon 114(1,2-Dichlorotetrafluoroethan	76-14-2	170.9	ND	0.50		ND	3.5	
Chloromethane	74-87-3	50.49	ND	0.50		ND	1.0	
n-Butane	106-97-8	58.12	**4.1**	0.50		**10**	1.2	
Vinyl chloride	75-01-4	62.50	ND	0.50		ND	1.3	
1,3-Butadiene	106-99-0	54.09	ND	0.50		ND	1.1	
Bromomethane	74-83-9	94.94	ND	0.50		ND	1.9	
Chloroethane	75-00-3	64.52	ND	0.50		ND	1.3	
Ethanol	64-17-5	46.07	**58**	0.50	E	**110**	0.94	
Bromoethene(Vinyl bromide)	593-60-2	106.9	ND	0.50		ND	2.2	
Freon 11(Trichlorofluoromethane)	75-69-4	137.4	ND	0.50		ND	2.8	
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	**7.9**	0.50		**20**	1.2	
Freon 113(1,1,2-Trichlorotrifluoroethan	76-13-1	187.4	ND	0.50		ND	3.8	
Acetone	67-64-1	58.08	**4.4**	0.50		**10**	1.2	
1,1-Dichloroethene	75-35-4	96.94	ND	0.50		ND	2.0	
Acetonitrile	75-05-8	41.00	ND	0.50		ND	0.84	
Tertiary butyl alcohol(TBA)	75-65-0	74.12	ND	0.50		ND	1.5	
Bromoethane(Ethyl bromide)	74-96-4	108.0	ND	0.50		ND	2.2	
3-Chloropropene(Allyl chloride)	107-05-1	76.53	ND	0.50		ND	1.6	
Carbon disulfide	75-15-0	76.14	ND	0.50		ND	1.6	
Methylene chloride	75-09-2	84.94	**0.51**	0.50		**1.8**	1.7	
Acrylonitrile	107-13-1	53.00	ND	0.50		ND	1.1	
Methyl-tert-butyl ether(MTBE)	1634-04-4	88.15	ND	0.50		ND	1.8	
trans-1,2-Dichloroethene	156-60-5	96.94	ND	0.50		ND	2.0	
n-Hexane	110-54-3	86.17	**0.55**	0.50		**1.9**	1.8	
1,1-Dichloroethane	75-34-3	98.96	ND	0.50		ND	2.0	
Vinyl acetate	108-05-4	86.00	ND	0.50		ND	1.8	
2-Butanone(MEK)	78-93-3	72.10	ND	0.50		ND	1.5	
cis-1,2-Dichloroethene	156-59-2	96.94	ND	0.50		ND	2.0	
Ethyl acetate	141-78-6	88.10	**1.7**	0.50		**6.1**	1.8	
Chloroform	67-66-3	119.4	ND	0.50		ND	2.4	
Tetrahydrofuran	109-99-9	72.11	ND	0.50		ND	1.5	
1,1,1-Trichloroethane	71-55-6	133.4	ND	0.50		ND	2.7	
Cyclohexane	110-82-7	84.16	ND	0.50		ND	1.7	
2,2,4-Trimethylpentane(Isooctane)	540-84-1	114.2	ND	0.50		ND	2.3	
Carbon tetrachloride	56-23-5	153.8	ND	0.50		ND	3.1	
n-Heptane	142-82-5	100.2	ND	0.50		ND	2.0	
1,2-Dichloroethane	107-06-2	98.96	ND	0.50		ND	2.0	
Benzene	71-43-2	78.11	ND	0.50		ND	1.6	
Trichloroethene	79-01-6	131.4	ND	0.50		ND	2.7	
1,2-Dichloropropane	78-87-5	113.0	ND	0.50		ND	2.3	
Methyl Methacrylate	80-62-6	100.12	ND	0.50		ND	2.0	
Bromodichloromethane	75-27-4	163.8	ND	0.50		ND	3.3	
1,4-Dioxane	123-91-1	88.12	ND	0.50		ND	1.8	
4-Methyl-2-pentanone(MIBK)	108-10-1	100.2	ND	0.50		ND	2.0	

EMSL Analytical
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http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491801100**
EMSL Sample #: **491801100-1**
Customer ID: **SREC85**
Customer PO: **18013**

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**
Date Collected: **11/9/2018**
Date Received: **11/12/2018**

Project: **EPA - Floor 7 Clearance**

Sample ID: CL7-TO15

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	11/12/2018	TP	K17886.D	HD2770	330 cc	1

Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
cis-1,3-Dichloropropene	10061-01-5	111.0	ND	0.50		ND	2.3	
Toluene	108-88-3	92.14	**3.0**	0.50		**11**	1.9	
trans-1,3-Dichloropropene	10061-02-6	111.0	ND	0.50		ND	2.3	
1,1,2-Trichloroethane	79-00-5	133.4	ND	0.50		ND	2.7	
2-Hexanone(MBK)	591-78-6	100.1	ND	0.50		ND	2.0	
Tetrachloroethene	127-18-4	165.8	ND	0.50		ND	3.4	
Dibromochloromethane	124-48-1	208.3	ND	0.50		ND	4.3	
1,2-Dibromoethane	106-93-4	187.8	ND	0.50		ND	3.8	
Chlorobenzene	108-90-7	112.6	ND	0.50		ND	2.3	
Ethylbenzene	100-41-4	106.2	ND	0.50		ND	2.2	
Xylene (p,m)	1330-20-7	106.2	ND	1.0		ND	4.3	
Xylene (Ortho)	95-47-6	106.2	ND	0.50		ND	2.2	
Styrene	100-42-5	104.1	ND	0.50		ND	2.1	
Isopropylbenzene (cumene)	98-82-8	120.19	ND	0.50		ND	2.5	
Bromoform	75-25-2	252.8	ND	0.50		ND	5.2	
1,1,2,2-Tetrachloroethane	79-34-5	167.9	ND	0.50		ND	3.4	
4-Ethyltoluene	622-96-8	120.2	ND	0.50		ND	2.5	
1,3,5-Trimethylbenzene	108-67-8	120.2	ND	0.50		ND	2.5	
2-Chlorotoluene	95-49-8	126.6	ND	0.50		ND	2.6	
1,2,4-Trimethylbenzene	95-63-6	120.2	ND	0.50		ND	2.5	
1,3-Dichlorobenzene	541-73-1	147.0	ND	0.50		ND	3.0	
1,4-Dichlorobenzene	106-46-7	147.0	ND	0.50		ND	3.0	
Benzyl chloride	100-44-7	126.0	ND	0.50		ND	2.6	
1,2-Dichlorobenzene	95-50-1	147.0	ND	0.50		ND	3.0	
1,2,4-Trichlorobenzene	120-82-1	181.5	ND	0.50		ND	3.7	
Hexachloro-1,3-butadiene	87-68-3	260.8	ND	0.50		ND	5.3	
Naphthalene	91-20-3	128.17	ND	0.50		ND	2.6	
Total Target Compound Concentrations:			**80**	**ppbv**		**170**	**ug/m3**	

Surrogate	Result	Spike	Recovery
4-Bromofluorobenzene	9.8	10	98%

Qualifier Definitions

ND = Non Detect

B = Compound also found in method blank.

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air…" Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).

EMSL Analytical
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856)858-4800 / (856)858-4571
http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491801100**
EMSL Sample #: **491801100-1**
Customer ID: **SREC85**
Customer PO: **18013**

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**
Date Collected: **11/9/2018**
Date Received: **11/12/2018**

Project: **EPA - Floor 7 Clearance**

Sample ID: CL7-TO15

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	11/12/2018	TP	K17886.D	HD2770	330 cc	1

Tentatively Identified Compound Results Summary

Tentatively Identified Compounds	CAS#	MW(1)	Result ppbv	Q	Result ug/m3	Retention Time	Comments
Ethane, 1,1-difluoro-	000075-37-6	66	**3.6**	JN	**9.7**	5.52	
Isobutane	000075-28-5	58	**1.2**	JN	**2.7**	6.02	
Butane, 2-methyl-	000078-78-4	72	**2.1**	JN	**6.1**	8.09	
Pentane	000109-66-0	72	**2.3**	JN	**6.7**	9.02	
Silanol, trimethyl-	001066-40-6	90	**3.5**	JN	**13**	13.54	
1-Hexanol	000111-27-3	102	**4.1**	JN	**17**	25.19	
Total TIC Concentrations:			**17**	**ppbv**	**55**	**ug/m3**	

Qualifier Definitions

(1) = If unknown, MW is assigned as equivalent Toluene (92) for ug/m3 conversion purposes.

B = Compound also found in method blank.

J= Estimated value based on a 1:1 response to internal standard.

N= Presumptive evidence of compound based on library match.

Method Reference

USEPA: Compendium Method TO-15, “Determination of Volatile Organic Compounds (VOCs) in Air…" Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).

EMSL Analytical
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856)858-4800 / (856)858-4571
http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491801100**
EMSL Sample #: **491801100-1**
Customer ID: **SREC85**
Customer PO: **18013**

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**
Date Collected: **11/9/2018**
Date Received: **11/12/2018**

Project: **EPA - Floor 7 Clearance**
Sample ID: CL7-TO15

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	11/12/2018	TP	K17886.D	HD2770	330 cc	1

Total Volatile Organic Compounds (TVOC) Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
n-Butane	106-97-8	58.12	**4.1**	0.50		**10**	1.2	
Ethanol	64-17-5	46.07	**58**	0.50	E	**110**	0.94	
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	**7.9**	0.50		**20**	1.2	
Acetone	67-64-1	58.08	**4.4**	0.50		**10**	1.2	
Methylene chloride	75-09-2	84.94	**0.51**	0.50		**1.8**	1.7	
n-Hexane	110-54-3	86.17	**0.55**	0.50		**1.9**	1.8	
Ethyl acetate	141-78-6	88.10	**1.7**	0.50		**6.1**	1.8	
Toluene	108-88-3	92.14	**3.0**	0.50		**11**	1.9	
Total Target Compound Concentrations:			**80**	**ppbv**		**170**	**ug/m3**	

Qualifier Definitions

B = Compound also found in method blank.

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.

Tentatively Identified Compounds	CAS#	MW(1)	Result ppbv		Q	Result ug/m3	Retention Time	Comments
Ethane, 1,1-difluoro-	000075-37-6	66	**3.6**		JN	**9.7**	5.52	
Isobutane	000075-28-5	58	**1.2**		JN	**2.7**	6.02	
Butane, 2-methyl-	000078-78-4	72	**2.1**		JN	**6.1**	8.09	
Pentane	000109-66-0	72	**2.3**		JN	**6.7**	9.02	
Silanol, trimethyl-	001066-40-6	90	**3.5**		JN	**13**	13.54	
1-Hexanol	000111-27-3	102	**4.1**		JN	**17**	25.19	
Total TIC Concentrations:			**17**	**ppbv**		**55**	**ug/m3**	

Qualifier Definitions

(1) = If unknown, MW is assigned as equivalent Toluene (92) for ug/m3 conversion purposes.

B = Compound also found in method blank.

J= Estimated value based on a 1:1 response to internal standard.

N= Presumptive evidence of compound based on library match.

Total Volatile Organic Compounds (TVOCs):	100	ppbv	230	ug/m3

USEPA TO-15
External Chain of Custody/ Field Test Data Sheet

EMSL Analytical, Inc.
200 Route 130 North
Cinnaminson, NJ 08077
Ph. (800) 220-3675
Fax (856) 786-0327

EMSL ANALYTICAL, INC.

EMSL Order Number (Lab Use Only): 491801100

Report To Contact Name: Alex Green	Bill To Company: SAME	Sampled By (Sign):
Company Name: SAR Enviro	Attention To:	Sampled By (Name): Alex Green
Address 1:	Address 1:	Total # of Samples: 1
Address 2:	Address 2:	Date Shipped: 11/9/18
Phone No.: 303-548-1175 Fax:	Phone No.: Fax:	Sample Collection Zip Code: 80202
Email Results To: alex@sarenvironmentalconsulting.com	Project Name: EPA - Floor 7 Clearance	Purchase Order: 018013

Turnaround Time (In Business Days): ☐ 10 Day Standard ☐ 5 Day ☐ 4 Day ☐ 3 Day ☐ 2 Day ☒ 1 Day ☐ Other

Reporting Format: ☒ Results Only (Standard Lab Report) ☐ Full Deliverables (Surcharge may apply) ☐ Other

EMSL Sample Identifier	Client Field Sample Identification	Field Use - All Information Required! Sampling Start Information Barometric Pres. ("Hg): Start Date	Time (24 hr clock)	Canister Pressure ("Hg)	Interior Temp. (F)	Sampling Stop Information Barometric Pres. ("Hg): Stop Date	Time (24 hr clock)	Canister Pressure ("Hg)	Interior Temp. (F)	Lab Use Only Canister Information Canister ID	1.4 Size (L)	Can Cert Batch ID	Outgoing Pressure ("Hg)	Incoming Pressure ("Hg)	Flow Contoller Reg. ID	Cal Flow (ml/min)	Analysis: USEPA TO-15	NJDEP LLTO-15	LIBRARY SEARCH	Other (Specify)	Matrix: Indoor/ Ambient Air	Soil Gas	Landfill/ Vent
	~~Floor 7~~ CL7-TO15	11-9-18	10:15	25	72	11-9-18	16:20	3	72	HD2770	1.4	H0498	-30.0	-8.5	5973	5.0	X		X		X		

Comments: ordered 6L, receive 1.4 L.

Lab Canister Certification
Analyst Signature (TO-15):

Relinquished by:	Date/ Time	Received by:	Date/ Time	Seal #/Intact
[signature]	1548 11.6.18	[signature]	11/7/18	301
[signature]	11/9/18 1010	Bob [signature] 11/12/18	855	301
Bob 11/12/18		[signature] Baker	11/12/18 1131	

Reason for Exchange (circle appropriate)

(Shipping)	Courier	Receiving	Sampling	Other:
(Shipping)	Courier	Receiving	Sampling	Other:
Shipping	Courier	Receiving	Sampling	(Other:)
Shipping	Courier	Receiving	Sampling	Other:
Shipping	Courier	Receiving	Sampling	Other:

491861100

TO-15 Sample Information

Please fill out this worksheet in addition to the Chain of Custody form. This information helps us to best analyze your samples, achieve requested TAT, and provide you with helpful interpretation information.

Company: S & R Environmental Consulting

Contact Person:

Name: Alex Green

E-mail: alex@srenvironmentalconsulting.com

Additional E-mails:

Telephone #: 303-548-1175

Library Search requested: [X] YES [ ] NO

A library search (*aka Tentatively Identified Compounds*) will identify up to 20 of the largest, non-target peaks that are not part of the standard TO-15 list of 74 compounds. If you are performing an Indoor Air Quality or odor investigation, the library search is recommended to provide you with all available information for your sample.

Sample Type:

[X] Indoor Air Quality (Home/Office) [ ] Soil Gas/Sub Slab
[ ] IAQ (Industrial)
[ ] Other:
Sample Description: EPA - Floor 7 Clearance

PLEASE NOTE: The result forms we provide will not indicate whether your results have exceeded any Exposure Limit criteria established by any regulatory agency. If you would like that information, please check off below which regulatory comparison forms you would like to receive.

[ ] **OSHA PELs/NIOSH RELs**	*combined form*		[ ] **Potential Sources of Compounds found in your IAQ sample**		
[ ] **EPA RSLs** - *11/2017; default is THQ 0.1*	Residential	Industrial	[X] **TVOC (Library Search Required for this format)**		
[ ] **EPA VISLs** - *3/2012*	IA/SG		[ ] **NH DES_WMD** - *2/2012*	Indoor Air	Soil Gas
[ ] **NJ DEP** - *1/2018* - **Circle one:**	VI-Indoor AQ	VI-Soil Gas	[ ] **Ohio** - *4/2013* - **Circle one:**	Residential	Commercial
[ ] **NC DENR** - *4/2014* - **Circle one:**	Residential	Non-residential	[ ] **Indiana Dept Env Mgmt Screeening Levels** - *3/2016*		
[ ] **PA DEP** - *11/2016*	Indoor Air		[ ] **Vermont DEP IROCP** - *4/2012* **(soil gas only)**		
[ ] **PA DEP** - 11/2016: Sub Slab Soil Gas **OR** Near Source Soil Gas			[ ] **California OEHHA** - *2/2012*		
[ ] **CA HHSL** - *11/2004* - **Circle one:**	Indoor Air	Soil Gas	[ ] **Other; these are the compounds I want reported:**		

Please note: There is an additional charge for any of the tests below. **USEPA TO-3 AND ASTM 5504 analyses can be performed from your canister at the Cinnaminson NJ Laboratory.**

US EPA TO-3 via GC/FID **(choose one below):**

[ ] C_1-C_6 hydrocarbons
[ ] Methane only

ASTM-D5504 *via GC/SCD* **(choose one below):***

[ ] Sulfur Scan (H_2S, COS, MeSH, EtSH, DMS)
[ ] H_2S only

Note** : **Hold time for sulfur gases is 1 day from collection. Please schedule your sample collection so samples are received in the lab prior to noon on Friday. Analysis performed out of hold time will have a notation in the report.

We can provide the following CMS tests from your canisters at the **Cinnaminson and Huntington Beach** laboratories. Please note these tests are to be used for IAQ/Screening purposes ONLY. EMSL recommends alternate field sampling techniques for these parameters (with the exception of water vapor); please contact your sales rep for the proper media. Please note: There is an additional charge for any of the tests below.

Draeger CMS Analyzer:
[X] CO [X] CO_2 [ ] NH_3 [ ] O2 [ ] Water Vapor

Sample Retention Policy: All canisters are guaranteed to be retained for one day after results are reported. Please review your results promptly to ensure your project scope is fully addressed. Cans may be retained for a longer period of time, but arrangements to hold your cans must be made through your customer account representative quickly. Thank you.

EMSL Analytical, Inc.
200 Route 130 North
Cinnaminson, NJ 08077
Ph. (800) 220-3675
Fax (856) 786-0327

USEPA TO-15

External Chain of Custody/ Field Test Data Sheet

EMSL Order Number (Lab Use Only): -491801100

Report To Contact Name: Alex Green	Bill To Company: SAME	Sampled By (Sign): [signature]	
Company Name: S&R Enviro	Attention To:	Sampled By (Name): Alex Green	
Address 1:	Address 1:	Total # of Samples: 1	
Address 2:	Address 2:	Date Shipped: 11/9/18	
Phone No.: 303-548-1175 Fax:	Phone No.: Fax:	Sample Collection Zip Code: 80202	
Email Results To: alex@srenvironmentalconsulting.com	Project Name: EPA - Floor 7 Clearance	Purchase Order: 018013	

Turnaround Time (In Business Days): ☐ 10 Day Standard ☐ 5 Day ☐ 4 Day ☐ 3 Day ☐ 2 Day ☒ 1 Day ☐ Other

Reporting Format: ☒ Results Only (Standard Lab Report) ☐ Full Deliverables (Surcharge may apply) ☐ Other

Client Field Sample Identification	Start Date	Start Time (24 hr clock)	Start Canister Pressure ("Hg)	Start Interior Temp. (F)	Stop Date	Stop Time (24 hr clock)	Stop Canister Pressure ("Hg)	Stop Interior Temp. (F)	Canister ID	Size (L)	Can Cert Batch ID	Outgoing Pressure ("Hg)	Incoming Pressure ("Hg)	Reg. ID	Cal Flow (ml/min)	USEPA TO-15	NJDEP LLTO-15	LIBRARY SEARCH	Other (Specify)	Indoor/ Ambient Air	Soil Gas	Landfill/ Vent
~~[illegible]~~ CL7-TO15	11-9-18	10:15	25	72	11-9-18	14:20	3	72	HD2776	6	H0498	-30.0		5973	5.0	X		X		X		

(Field Use - All Information Required! Barometric Pres. ("Hg): Sampling Start Information / Sampling Stop Information. Lab Use Only: Canister Information; Flow Contoller. EMSL Sample Identifier.)

Comments: ordered 6L, receive 1.4L.

Lab Canister Certification
Analyst Signature (TO-15):

Relinquished by:	Date/ Time	Received by:	Date/ Time	Seal #/Intact	Reason for Exchange (circle appropriate)
[signature]	1548 11.6.18	[signature]	11/7/18	301	(Shipping) Courier Receiving Sampling Other:
[signature]	11/9/18	Bob [signature]	11/12/18 855	301	(Shipping) Courier Receiving Sampling Other:
Bob 11/12/18	1010				Shipping Courier Receiving Sampling Other:
					Shipping Courier Receiving Sampling Other:
					Shipping Courier Receiving Sampling Other:

-491801100

TO-FM-12 Sample Information
Revision 10
Effective Date: May 25, 2018

TO-15 Sample Information

Please fill out this worksheet in addition to the Chain of Custody form. This information helps us to best analyze your samples, achieve requested TAT, and provide you with helpful interpretation information.

Company: S & R Environmental Consulting

Contact Person:

Name: Alex Green

E-mail: alex@srenvironmentalconsulting.com

Additional E-mails:

Telephone #: 303-548-1175

Library Search requested: [X] YES [ ] NO

A library search (*aka Tentatively Identified Compounds*) will identify up to 20 of the largest, non-target peaks that are not part of the standard TO-15 list of 74 compounds. If you are performing an Indoor Air Quality or odor investigation, the library search is recommended to provide you with all available information for your sample.

Sample Type:

[X] Indoor Air Quality (Home/Office)
[ ] IAQ (Industrial)
[ ] Other:
[ ] Soil Gas/Sub Slab

Sample Description: EPA - Floor 7 Clearance

PLEASE NOTE: The result forms we provide will not indicate whether your results have exceeded any Exposure Limit criteria established by any regulatory agency. If you would like that information, please check off below which regulatory comparison forms you would like to receive.

[ ] OSHA PELs/NIOSH RELs	*combined form*				
[ ] EPA RSLs - *11/2017; default is THQ 0.1*	Residential	Industrial			
[ ] EPA VISLs - *3/2012*	IA/SG				
[ ] NJ DEP - *1/2018* - Circle one:	VI-Indoor AQ	VI-Soil Gas			
[ ] NC DENR - *4/2014* - Circle one:	Residential	Non-residential			
[ ] PA DEP - *11/2016*	Indoor Air				
[ ] PA DEP - 11/2016: Sub Slab Soil Gas OR Near Source Soil Gas					
[ ] CA HHSL - *11/2004* - Circle one:	Indoor Air	Soil Gas			

[ ] Potential Sources of Compounds found in your IAQ sample
[X] TVOC (Library Search Required for this format)
[ ] NH DES_WMD - *2/2012* — Indoor Air / Soil Gas
[ ] Ohio - *4/2013* - Circle one: Residential / Commercial
[ ] Indiana Dept Env Mgmt Screeening Levels - *3/2016*
[ ] Vermont DEP IROCP - *4/2012* (soil gas only)
[ ] California OEHHA - *2/2012*
[ ] Other; these are the compounds I want reported:

Please note: There is an additional charge for any of the tests below. **USEPA TO-3 AND ASTM 5504 analyses can be performed from your canister at the Cinnaminson NJ Laboratory.**

US EPA TO-3 via GC/FID **(choose one below):**
[ ] C_1-C_6 hydrocarbons
[ ] Methane only

ASTM-D5504 *via GC/SCD* **(choose one below):***
[ ] Sulfur Scan (H_2S, COS, MeSH, EtSH, DMS)
[ ] H_2S only

Note**: **Hold time for sulfur gases is 1 day from collection. Please schedule your sample collection so samples are received in the lab prior to noon on Friday. Analysis performed out of hold time will have a notation in the report.

We can provide the following CMS tests from your canisters at the Cinnaminson and Huntington Beach laboratories. Please note these tests are to be used for IAQ/Screening purposes ONLY. EMSL recommends alternate field sampling techniques for these parameters (with the exception of water vapor); please contact your sales rep for the proper media. Please note: There is an additional charge for any of the tests below.

Dräger CMS Analyzer:
[X] CO [X] CO_2 [ ] NH_3 [ ] O2 [ ] Water Vapor

Sample Retention Policy: All canisters are guaranteed to be retained for one day after results are reported. Please review your results promptly to ensure your project scope is fully addressed. Cans may be retained for a longer period of time, but arrangements to hold your cans must be made through your customer account representative quickly. Thank you.

Wisconsin Occupational Health Laboratory
WISCONSIN STATE LABORATORY OF HYGIENE
UNIVERSITY OF WISCONSIN-MADISON

2601 Agriculture Drive
Madison, WI 53718
Phone: (800) 446-0403
Fax: (608) 224-6213
Web: wohl-lab.org

ALEX GREEN

S & R ENVIRONMENTAL CONSULTING

STE 200

5801 LOGAN ST

DENVER, CO 80216

Lab Workorder ID	419274
Visit/Project ID	EPA/BOOTS
PO	018013
Received	November 13, 2018
Reported	November 15, 2018
Report ID	5971955
Previous Report IDs	

Dear ALEX GREEN:

Enclosed are the analytical results for sample(s) received by the laboratory on November 13, 2018. All samples received were acceptable, results were not blank corrected, and all quality control met laboratory standards unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact the lab.

Sincerely,

Steve Strebel, Laboratory Director

Analyst - JOHN GLOWACKI

Wisconsin Occupational Health Laboratory
WISCONSIN STATE LABORATORY OF HYGIENE
UNIVERSITY OF WISCONSIN-MADISON

2601 Agriculture Drive
Madison, WI 53718
Phone: (800) 446-0403
Fax: (608) 224-6213
Web: www.wohl-lab.org

Final Report

Lab ID: **419274001**	Sample ID: **7-CL-CAP**	Media: **OVS-7 TUBE**
Sampling Date: **11/9/2018**	Matrix: **Air**	Sampled Time:

						RESULT			
Analyte	**Method**	**Analysis Date**	**Air Volume**	**Reporting Limit**	**Front**	**Rear**	**Total**	**Air Concentration**	**TWA**
Caprolactam (Dust and Vapor)	OSHA PV2012	11/14/2018	100 L	1.5 ug	<1.5 ug	<1.5 ug	<1.5 ug	<0.015 mg/m3	

Abbreviations:
mg = milligrams ppm or ppmv = parts per million /m3 = per cubic meter
ug = micrograms ppb or ppbv = parts per billion ng = nanograms
< Less Than. The analyte, if present, is at a level too low to be accurately quantitated by the method used

End of Analytical Report

The results in this report apply only to the samples, specifically listed above, and tested at the Wisconsin Occupational Health Laboratory

DCM SCIENCE LABORATORY, INC.
12421 W. 49TH AVENUE, UNIT #6
WHEAT RIDGE, CO 80033 - (303) 463-8270

NUISANCE DUST - TOTAL/RESPIRABLE
NIOSH 0500/0600 METHOD(S) - PAGE 1 OF 1

CLIENT:
S&R ENVIRONMENTAL CONSULTING
5801 LOGAN STREET, SUITE 200
DENVER, CO 80216

ANALYSIS DATE: 11-13-18
REPORTING DATE: 11-13-18
RECEIPT DATE: 11-12-18
CLIENT JOB NO.: 018013
PROJECT TITLE: EPA FLOOR 7
DCMSL PROJECT: SREC926

DCM NO.	CLIENT NUMBER	VOLUME (L)	DUST (1) (mg)	NUISANCE DUST TOTAL/RESPIRABLE (1) (mg/m3)
-1R	185882/CL-7-TD	102	0.017	0.167
-2R	185883/CL-7-RD	200	0.021	0.105

(1) DUST IS CONSIDERED RESPIRABLE BASED ON SAMPLING METHOD. SAMPLES MUST BE COLLECTED USING A CYCLONE DEVICE.

THE SAMPLES WERE ANALYZED USING THE NIOSH 0500/0600 METHOD(S). PREWEIGHED FILTERS WERE POST WEIGHED TO DETERMINE TOTAL NUISANCE DUST COLLECTED ON THE FILTERS. THE COEFFICIENT OF VARIATION OF THIS METHOD AS STATED BY NIOSH 0500 IS 0.043 TO 0.145 FOR A RANGE OF 0.30mg TO 2.00mg PER SAMPLE. THE RANGE STUDIED IN THIS METHOD IS 0.5 TO 10mg/m3.

THE SAMPLES WERE WEIGHED WITH A METTLER XP56 ANALYTICAL MICROBALANCE WITH A REPORTING LIMIT OF ±0.006mg. THE BALANCE IS CERTIFIED TO BE WITHIN INSTRUMENT SPECIFICATIONS AND TRACEABLE TO NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY.

NO BLANKS WERE SUBMITTED BY THE CLIENT. THE RESULTS ARE NOT BLANK CORRECTED.

THE SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION. THIS TEST REPORT RELATES ONLY TO THE ITEMS TESTED. THIS REPORT MAY NOT BE REPRODUCED EXCEPT IN FULL WITHOUT THE WRITTEN APPROVAL OF THE LABORATORY.

INDUSTRIAL HYGIENE ISO/IEC 17025:2005 Accredited Laboratory AIHA LAP, LLC AIHAACCREDITEDLABS.ORG Lab ID # 101526

Jason Barnes

JASON BARNES, ANALYST

DCM
S·C·I·E·N·C·E LABORATORY, INC.
12421 W. 49th Avenue, Unit #6
Wheat Ridge, CO 80033

(303) 463-8270/(800) 852-7340
(303) 463-8267 – fax

Date/Time Received _____ DCMSL Group No. _____ DCMSL Log No. _____

Field Data Sheet/Chain of Custody

Samples Submitted By:
Company: S&R Enviro
Address:

Job/P.O. # 018013

Project Title EPA Floor 7

Contact: Alex Green
Phone: 303-548-1175
Cell:
Email: to Stephanie

Archive: Asbestos samples are archived for 6 months unless other arrangements are made. All other samples are archived for 3 months.

Turnaround Time Requested:
[ ] Standard (3 to 5 Business Days)
[X] 24 Hour Rush
[ ] 2 Hour Rush (Asbestos Only)
[ ] Other _____

Procedure Requested:

ASBESTOS
Bulk [ ] Standard EPA
[ ] Progressive
[ ] Point Count
[ ] Other
Air [ ] NIOSH 7400
[ ] OSHA ID-160
[ ] Other

DUST & SILICA
[ ] Silica – Air NIOSH 7500
[ ] Silica – Bulk
[ ] Silica – Bulk Respirable
[X] Dust – NIOSH 0500/0600

OTHER SERVICES
[ ] Optical Microscopy
[ ] X-ray Diffraction – Scan/Search
[ ] X-ray Diffraction – Clay/Bulk
[ ] SEM

Other Analysis: RD w/ aluminum cyclone

	Client Sample No.:	Sample Date	Air Volume	Other Information
1	CL-7-TD	11/9/18	102 L	50 minutes
2	CL-7-RD	↕	200 L	80 minutes
3				
4				
5				
6				
7				
8				
9				
10				

Relinquished By: _____ Date/Time 11/12/18
Received By: N Heaney Date/Time 11/12/18 12:47

EMSL Analytical, Inc. 200 Route 130 North, Cinnaminson, NJ 08077

Order ID: 281900402

Attn:	Alex Green	Customer ID:	SREC85
	S&R Environmental Consulting Inc.	Customer PO:	
	5801 Logan Street, #200	Date Received:	01/30/19
	Denver, CO 80216		
Project:	**EPA Floor 2 Clearance**	EMSL Project ID:	
Report Date:	01/31/2019	Date Analyzed:	01/30/2019

Test Report – 4-Phenylcyclohexene Analysis by GC/FID via Modified OSHA CSI Method

Sample ID	Identification	Sample Volume (L)	Sample Weight (µg)	Sample Conc. (µg/m^3)	Reporting Limit (µg/m^3)
281900402-0001	4-PCG Fl 2	24	<0.030	<1.3	1.3
Desorption Blank	-	0	<0.030	ND	NA

Notes:
1. Samples were received in acceptable condition unless otherwise noted.
2. These results relate only to the samples tested.
3. Sample results are not blank corrected unless otherwise noted.
4. Discernable field blank(s) submitted with samples if reported above.

TC/VMD
Analyst

Scott VanEtten, CIH- Lab Manager
Or other approved signatory

OrderID: 281900402

EMSL ANALYTICAL, INC.
LABORATORY•PRODUCTS•TRAINING

Industrial Hygiene Chain of Custody

EMSL Order Number (Lab Use Only): 281900402

EMSL ANALYTICAL, INC.
200 ROUTE 130 NORTH
CINNAMINSON, NJ 08077
PHONE: (800) 220-3675
FAX: (856) 786-5974

Report To Contact Name: Alex Green	Bill To Company:	Client ID #:
Company Name: SER Environmental	Attention To:	# Samples in Shipment:
Street: 5801 Logan St #200	Street:	Date of Shipment:
City: Denver State/Province: Co Zip/Postal Code: 80216	City: State/Province: Zip/Postal Code:	Sampled By (Signature): [signature]
Phone: 303-548-1175 Fax:	Phone: Fax:	Purchase Order:
Email Results To: Alex@serenvironmentalconsulting.com	Project Name: EPA Floor 2 Clearance	U.S. State where Samples Collected:

Turnaround Time (TAT) – Please Check: If No Selection Made, Standard 2 Week TAT Will Apply

2 Week	1 Week	4 Day	3 Day	2 Day	1 Day	Other (Call Lab)
☐	☐	☐	☐	☐	☒	☐

Media Type:
Manufacturer/Part #:
Lot #:

Client Sample ID	Location/Description	Analyte / Method	Media	Flow (lpm)	Sample Time On	Sample Time Off	Volume / Area	Sample Type	Sample Date	Comments
4PCH-FL-2	Floor 2	OSHA-CSI	Sorbent Tube	0.1	8:45	12:45	24 L	☐ Area ☐ Personal	1-29-19	
Form-FL-2	Floor 2	NIOSH 2016	↓	0.1	8:45	12:45	24 L	☐ Area ☐ Personal	↓	
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		

RECEIVED EMSL CINNAMINSON, N.J. 2019 JAN 30 P 4:04

Note: Most NIOSH and OSHA methods require field blanks. It is the IH field sampler's responsibility to submit the proper number of field blanks and duplicates.

Released By	Date	Received By	Date
[signature]	1-29-19	CR WI 1/29/19 1/30/19	8:30P

Comments:

Controlled Document – COC-21 Industrial Hygiene – R2.1 – 3/30/2017

Page ______ of ______ pages

EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077
Phone/Fax: (800) 220-3675 /
http://www.EMSL.com / IndustrialHygienelab@emsl.com

EMSL Order ID:	281900403
Customer ID:	SREC85
Customer PO:	
Project ID:	

Attn: Alex Green
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: (303) 297-1645
Fax: (303) 297-1646
Collected:
Received: 1/30/2019
Analyzed: 1/30/2019

Proj: EPA Floor 2 Clearance

Test Report:Formaldehyde Analysis by HPLC of Solid Sorbent Tubes via NIOSH 2016, Issue 2, 3/15/03 modified

Sample ID	Identification	Volume	Sample Weight	Sample Concentration		Reporting Limit
Form-FI-2 281900403-0001	Floor 2	24 L	0.12 µg	0.0049 mg/m³	0.0040 ppm	0.0021 mg/m³
Media Blank		N/A	<0.050 µg	<0.050 µg	N/A	N/A

N/A = Not Applicable

Analyst(s)
Thomas Cancglin

Scott Van Etten, CIH, Laboratory Manager

Any questions please contact Scott VanEtten.

Initial report from: 01/31/2019 12:57:55

1. Samples were received in acceptable condition unless otherwise noted.
2. These results relate only to the samples tested.
3. Sample results are blank corrected. Reporting Limits for samples without volumes, such as Field Blanks, are 0.050 ug.
4. A discernable Field Blank was submitted if listed above as a discrete sample.

Samples analyzed by EMSL Analytical - Industrial Hygiene Cinnaminson, NJ AIHA-LAP, LLC--IHLAP Accred. Lab 100194

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Industrial Hygiene Chain of Custody

EMSL Order Number (Lab Use Only): 281900403

EMSL ANALYTICAL, INC.
200 ROUTE 130 NORTH
CINNAMINSON, NJ 08077
PHONE: (800) 220-3675
FAX: (856) 786-5974

Report To Contact Name: ALEX GRECH	Bill To Company:	Client ID #
Company Name: SER ENVIRONMENTAL	Attention To:	# Samples in Shipment:
Street: 5801 Logan St #200	Street:	Date of Shipment:
City: Denver State/Province: CO Zip/Postal Code: 80216	City: State/Province: Zip/Postal Code:	Sampled By (Signature):
Phone: 303-548-1175 Fax:	Phone: Fax:	Purchase Order:
Email Results To: ALEX@SERENVIRONMENTALCONSULTING.COM	Project Name: EPA FLOOR 2 CLEARANCE	U.S. State where Samples Collected:

Turnaround Time (TAT) – Please Check: If No Selection Made, Standard 2 Week TAT Will Apply							Media Type:
2 Week	1 Week	4 Day	3 Day	2 Day	1 Day	Other (Call Lab)	Manufacturer/Part #:
☐	☐	☐	☐	☐	☒	☐ _____	Lot #:

Client Sample ID	Location/Description	Analyte / Method	Media	Flow (lpm)	Sample Time On	Sample Time Off	Volume / Area	Sample Type	Sample Date	Comments
4PCH-FL-2	FLOOR 2	OSHA-CS1	SORBENT TUBE	0.1	8:45	12:45	24 L	☐ Area ☐ Personal	1-29-19	
Form-FL-2	FLOOR 2	NIOSH 2016	↓	0.1	8:45	12:45	24 L	☐ Area ☐ Personal	↓	
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		
								☐ Area ☐ Personal		

RECEIVED EMSL CINNAMINSON, N.J. 2019 JAN 30 P 4:04

Note: Most NIOSH and OSHA methods require field blanks. It is the IH field sampler's responsibility to submit the proper number of field blanks and duplicates.

Released By	Date	Received By	Date
	1-29-19	CRWE 1/24/14 1/30/19	8:30P

Comments:

OrderID: 281900403

EMSL Analytical
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856)858-4800 / (856)858-4571
http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491900072**
Customer ID: **SREC85**
Customer PO: **Not Available**

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Project: **EPA - Floor 2 Clearance**

Phone: **303-297-1645**
Fax: **303-297-1646**
Date Collected: **1/29/2019**
Date Received: **1/30/2019**
Date Analyzed: **1/30/2019**
Analyst: **Tracy Peters**

Fixed Gas Analysis by Using The Draeger CMS (Chip Measurement System)
Laboratory Report- Sample Summary

Sample ID.	Identification	Compound	Detection Limit (ppmV)	Sample Result (ppmV)
491900072-0001	EPA Floor 2	Carbon monoxide	6.5	<6.5
491900072-0001	EPA Floor 2	Carbon dioxide	260	390

If "Preliminary Report" is displayed in the signature box; this indicates that there are samples that have not yet been analyzed, that are in a preliminary state, or that analysis is in progress but not completed at the time of report issue.

Report Date:	Report Revision	Revision Comments
1/31/2019	R0	Initial Report

Marjorie Howley, Laboratory Manager
or other approved signatory

Test results meet all NELAP requirements unless otherwise specified.

USEPA TO-15
External Chain of Custody/ Field Test Data Sheet

EMSL ANALYTICAL, INC.

EMSL Analytical, Inc.
200 Route 130 North
Cinnaminson, NJ 08077
Ph. (800) 220-3675
Fax (856) 786-0327

EMSL Order Number (Lab Use Only): 491900072

Report To Contact Name: ALEX GREEN	Bill To Company: SAME	Sampled By (Sign):
Company Name: SER ENVIRONMENTAL	Attention To:	Sampled By (Name): TOM ZIEGLER
Address 1: 5801 LOGAN ST #200	Address 1:	Total # of Samples: 1
Address 2: DENVER CO 80216	Address 2:	Date Shipped:
Phone No.: Fax:	Phone No.: Fax:	Sample Collection Zip Code: 80203
Email Results To: ALEX@SERENVIRONMENTALCONSULTING.COM	Project Name: EPA - FLOOR 2 CLEARANCES	Purchase Order:

Turnaround Time (In Business Days): ☐ 10 Day Standard ☐ 5 Day ☐ 4 Day ☐ 3 Day ☐ 2 Day ☒ 1 Day ☐ Other

Reporting Format: ☐ Results Only (Standard Lab Report) ☐ Full Deliverables (Surcharge may apply) ☐ Other

EMSL Sample Identifier	Client Field Sample Identification	Field Use - All Information Required! Sampling Start Information Barometric Pres. ("Hg): Start Date	Time (24 hr clock)	Canister Pressure ("Hg)	Interior Temp. (F)	Sampling Stop Information Barometric Pres. ("Hg): Stop Date	Time (24 hr clock)	Canister Pressure ("Hg)	Interior Temp. (F)	Lab Use Only Canister Information: Canister ID	Size (L)	Can Cert Batch ID	Outgoing Pressure ("Hg)	Incoming Pressure ("Hg)	Flow Contoller: Reg. ID	Cal Flow (ml/min)	Analysis: USEPA TO-15	NJDEP LLTO-15	LIBRARY SEARCH	Other (Specify)	Matrix: Indoor/ Ambient Air	Soil Gas	Landfill/ Vent
	EPA Floor 2	1-29-19	8:45	26	70	1-29-19	13:60	3		E0432	6	C3679	-29.2	-7.0	8061	21.2	X		X		X		

2019 JAN 30 A 10:54

Comments:

Relinquished by:	Date/ Time	Received by:	Date/ Time	Seal #/Intact
Carly Peters	1/24/19 1545	FedEx	1/30 10:40	293
	1-29-19			
FedEx	1/30 10:40	Jane Doe Airbox	1/30/19 1305	

Lab Canister Certification
Analyst Signature (TO-15):

Reason for Exchange (circle appropriate)

(Shipping)	Courier	Receiving	Sampling	Other:
Shipping	Courier	Receiving	Sampling	Other:
Shipping	Courier	Receiving	Sampling	(Other) AN
Shipping	Courier	Receiving	Sampling	Other:
Shipping	Courier	Receiving	Sampling	Other:

491900072

TO-15 Sample Information

Please fill out this worksheet in addition to the Chain of Custody form. This information helps us to best analyze your samples, achieve requested TAT, and provide you with helpful interpretation information.

Company: S&R Environmental Consulting

Contact Person:

Name: Alex Green

E-mail: Alex@srenvironmentalconsulting.com

Additional E-mails: Tom@srenvironmentalconsulting.com

Telephone #: 303-548-1175

Library Search requested: [X] YES [ ] NO

A library search (*aka Tentatively Identified Compounds*) will identify up to 20 of the largest, non-target peaks that are not part of the standard TO-15 list of 74 compounds. If you are performing an Indoor Air Quality or odor investigation, the library search is recommended to provide you with all available information for your sample.

Sample Type:

[X] Indoor Air Quality (Home/Office)
[ ] IAQ (Industrial)
[ ] Other:
[ ] Soil Gas/Sub Slab

Sample Description: EPA - Floor 2 Clearance

2019 JAN 30 A 10:54
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CINNAMINSON, N.J.

PLEASE NOTE: The result forms we provide will not indicate whether your results have exceeded any Exposure Limit criteria established by any regulatory agency. If you would like that information, please check off below which regulatory comparison forms you would like to receive.

[ ] OSHA PELs/NIOSH RELs	*combined form*		
[ ] EPA RSLs - *11/2017; default is THQ 0.1*	Residential	Industrial	
[ ] EPA VISLs - *3/2012*	IA/SG		
[ ] NJ DEP - *1/2018* - Circle one:	VI-Indoor AQ	VI-Soil Gas	
[ ] NC DENR - *4/2014* - Circle one:	Residential	Non-residential	
[ ] PA DEP - *11/2016*	Indoor Air		
[ ] PA DEP - 11/2016: Sub Slab Soil Gas OR Near Source Soil Gas			
[ ] CA HHSL - *11/2004* - Circle one:	Indoor Air	Soil Gas	

[ ] Potential Sources of Compounds found in your IAQ sample
[X] TVOC (Library Search Required for this format)

[ ] NH DES_WMD - *2/2012*	Indoor Air	Soil Gas
[ ] Ohio - *4/2013* - Circle one:	Residential	Commercial

[ ] Indiana Dept Env Mgmt Screeening Levels - *3/2016*
[ ] Vermont DEP IROCP - *4/2012* (soil gas only)
[ ] California OEHHA - *2/2012*
[ ] Other; these are the compounds I want reported:

Please note: There is an additional charge for any of the tests below. **USEPA TO-3 AND ASTM 5504 analyses can be performed from your canister at the Cinnaminson NJ Laboratory.**

US EPA TO-3 via GC/FID **(choose one below):**

[ ] C_1-C_6 hydrocarbons
[ ] Methane only

ASTM-D5504 *via GC/SCD* **(choose one below):***

[ ] Sulfur Scan (H_2S, COS, MeSH, EtSH, DMS)
[ ] H_2S only

Note** : **Hold time for sulfur gases is 1 day from collection. Please schedule your sample collection so samples are received in the lab prior to noon on Friday. Analysis performed out of hold time will have a notation in the report.

We can provide the following CMS tests from your canisters at the **Cinnaminson and Huntington Beach** laboratories. Please note these tests are to be used for IAQ/Screening purposes ONLY. EMSL recommends alternate field sampling techniques for these parameters (with the exception of water vapor); please contact your sales rep for the proper media. Please note: There is an additional charge for any of the tests below.

Draeger CMS Analyzer:
[X] CO [X] CO_2 [ ] NH_3 [ ] O2 [ ] Water Vapor

Sample Retention Policy: All canisters are guaranteed to be retained for one day after results are reported. Please review your results promptly to ensure your project scope is fully addressed. Cans may be retained for a longer period of time, but arrangements to hold your cans must be made through your customer account representative quickly. Thank you.

EMSL Analytical
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Phone/Fax: (856)858-4800 / (856)858-4571
http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491900072**
Customer ID: **SREC85**
Customer PO: **Not Available**

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**

Project: **EPA - Floor 2 Clearance**

Date Collected: **1/29/2019**
Date Received: **1/30/2019**

Laboratory Report- Sample Summary

EMSL Sample ID.	Client Sample ID.	Start Sampling Date	Start Sampling Time
491900072-0001	EPA Floor 2	1/29/2019	8:45 AM

If "Preliminary Report" is displayed in the signature box; this indicates that there are samples that have not yet been analyzed, that are in a preliminary state, or that analysis is in progress but not completed at the time of report issue.

Report Date	Report Revision	Revision Comments
1/31/2019	R0	Initial Report

Marjorie Howley, Laboratory Manager
or other approved signatory

Test results meet all NELAP requirements unless otherwise specified.
NJDEP Certification #: 03036

The samples associated with this report were received in good condition unless otherwise noted. This report relates only to those items tested as received by the laboratory. The results are not blank corrected unless otherwise noted. Interpretation and use of test results are the responsibility of the client. This report may not be reproduced except in full and without written approval by EMSL Analytical, Inc.

EMSL Analytical
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856)858-4800 / (856)858-4571
http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491900072**
Customer ID: **SREC85**
Customer PO: **Not Available**

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**

Project: **EPA - Floor 2 Clearance**

Date Collected: **1/29/2019**
Date Received: **1/30/2019**

Case Narrative

Method Reference
USEPA: Compendium Method TO-15, “Determination of Volatile Organic Compounds (VOCs) in Air…" Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).

Column
Restek RTX-502.2, 60m, 0.25mm ID, 1.4um

Concentrator Traps:
Entech Dual Cold Traps: (1) 1/8” No Packing, (2) 1/8” Tenax.

Gas Standards:
Certified Gas standards were used for all analyses.

Sample Volumes:
Sample volume aliquots for this procedure are 250cc for indoor/ ambient air and 25cc for soil gas. Other volumes for sample dilutions are reflected on each result page.

Holding Times:
Standard holding times of 30 days were met for all samples.

Sampling Pressures:
All samples were received at acceptable pressure/vacuum unless listed below.

Sample Dilutions:
Dilutions reported are designated by the sample # with a "DL" suffix resulting from initial analysis having compounds exceeding calibration as reported with an "E" qualifier. Ethanol and Isopropanol are not diluted for and may be reported with an "E" qualifier on the final result.

QA/QC criteria outside method specifications are listed below (if applicable).

Initial Calibration
All Initial Calibration criteria met method specification.

Initial Calibration Verification Standard (ICVS)- Second Source
ICVS met method specification with 70-130% recovery for 100% of compounds.

Laboratory Control Sample (LCS)
LCS met method specification with 70-130% recovery for 100% of compounds.*(If the LCS does not meet criteria but any compounds which have recoveries >130% are not found in the samples, samples may be reported)*

Continuing Calibration Verification Standard (CCVS)
CCVS met method specification with all compounds within 30% deviation.

Ending Calibration Verification Standard (ECVS)
ECVS met method specification with all compounds within 30% deviation.

Method Blanks (MB)
Method Blank met method specification.

Reporting Limit Laboratory Control Samples (RLLCS)
RLLCS met method specification with 90% of compounds within the 60-140% recovery range. Individual compounds outside of the recovery range may be listed below.

EMSL Analytical
200 Route 130 North, Cinnaminson, NJ 08077
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http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491900072**
Customer ID: **SREC85**
Customer PO: **Not Available**

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**

Project: **EPA - Floor 2 Clearance**

Date Collected: **1/29/2019**
Date Received: **1/30/2019**

Case Narrative

Manual Integration *: -Listed below if applicable. Before and after documentation provided in extended deliverable packages.*

The following data qualifiers that may have been reported with the data,

ND- Non Detect. This notation would be used in the results column in lieu of a "U" qualifier.

U- Compound was analyzed for but not detected at a listed and appropriately adjusted reporting level.

J- Estimated value reported below adjusted reporting limit for target compounds or estimating a concentration for TICs where a 1:1 response is assumed

B- Compound found in associated method blank as well as in the sample.

E- Estimated value exceeding upper calibration range of instrument. Ethanol and isopropyl alcohol are not specifically targeted to dilute within calibration range.

D- Compound reported from additional diluted analysis.

N- indicates presumptive evidence of a compound based on library search match.

EMSL Analytical, Inc. certifies that this data package is in compliance with the terms and conditions of this contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer –readable data submitted on diskette has been authorized by the laboratory manager or his/her designee, as verified by the following signature.

Report Date	Report Revision	Revision Comments
1/31/2019	R0	Initial Report

Marjorie Howley

Marjorie Howley, Laboratory Manager
or other approved signatory

Test results meet all NELAP requirements unless otherwise specified.

EMSL Analytical
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856)858-4800 / (856)858-4571
http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491900072**
EMSL Sample #: **491900072-1**
Customer ID: **SREC85**
Customer PO: **Not Available**

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**
Date Collected: **1/29/2019**
Date Received: **1/30/2019**

Project: **EPA - Floor 2 Clearance**

Sample ID: EPA Floor 2

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	01/31/2019	TP	P4789.D	E0432	322.5 cc	1

Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
Propylene	115-07-1	42.08	ND	1.0		ND	1.7	
Freon 12(Dichlorodifluoromethane)	75-71-8	120.9	**0.51**	0.50		**2.5**	2.5	
Freon 114(1,2-Dichlorotetrafluoroethan	76-14-2	170.9	ND	0.50		ND	3.5	
Chloromethane	74-87-3	50.49	**0.52**	0.50		**1.1**	1.0	
n-Butane	106-97-8	58.12	**6.9**	0.50		**16**	1.2	
Vinyl chloride	75-01-4	62.50	ND	0.50		ND	1.3	
1,3-Butadiene	106-99-0	54.09	ND	0.50		ND	1.1	
Bromomethane	74-83-9	94.94	ND	0.50		ND	1.9	
Chloroethane	75-00-3	64.52	ND	0.50		ND	1.3	
Ethanol	64-17-5	46.07	**13**	0.50		**24**	0.94	
Bromoethene(Vinyl bromide)	593-60-2	106.9	ND	0.50		ND	2.2	
Freon 11(Trichlorofluoromethane)	75-69-4	137.4	ND	0.50		ND	2.8	
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	**1.5**	0.50		**3.7**	1.2	
Freon 113(1,1,2-Trichlorotrifluoroethan	76-13-1	187.4	ND	0.50		ND	3.8	
Acetone	67-64-1	58.08	**3.2**	0.50		**7.5**	1.2	
1,1-Dichloroethene	75-35-4	96.94	ND	0.50		ND	2.0	
Acetonitrile	75-05-8	41.00	**7.5**	0.50		**13**	0.84	
Tertiary butyl alcohol(TBA)	75-65-0	74.12	ND	0.50		ND	1.5	
Bromoethane(Ethyl bromide)	74-96-4	108.0	ND	0.50		ND	2.2	
3-Chloropropene(Allyl chloride)	107-05-1	76.53	ND	0.50		ND	1.6	
Carbon disulfide	75-15-0	76.14	ND	0.50		ND	1.6	
Methylene chloride	75-09-2	84.94	ND	0.50		ND	1.7	
Acrylonitrile	107-13-1	53.00	ND	0.50		ND	1.1	
Methyl-tert-butyl ether(MTBE)	1634-04-4	88.15	ND	0.50		ND	1.8	
trans-1,2-Dichloroethene	156-60-5	96.94	ND	0.50		ND	2.0	
n-Hexane	110-54-3	86.17	**0.72**	0.50		**2.5**	1.8	
1,1-Dichloroethane	75-34-3	98.96	ND	0.50		ND	2.0	
Vinyl acetate	108-05-4	86.00	ND	0.50		ND	1.8	
2-Butanone(MEK)	78-93-3	72.10	ND	0.50		ND	1.5	
cis-1,2-Dichloroethene	156-59-2	96.94	ND	0.50		ND	2.0	
Ethyl acetate	141-78-6	88.10	**0.96**	0.50		**3.4**	1.8	
Chloroform	67-66-3	119.4	ND	0.50		ND	2.4	
Tetrahydrofuran	109-99-9	72.11	ND	0.50		ND	1.5	
1,1,1-Trichloroethane	71-55-6	133.4	ND	0.50		ND	2.7	
Cyclohexane	110-82-7	84.16	ND	0.50		ND	1.7	
2,2,4-Trimethylpentane(Isooctane)	540-84-1	114.2	ND	0.50		ND	2.3	
Carbon tetrachloride	56-23-5	153.8	ND	0.50		ND	3.1	
n-Heptane	142-82-5	100.2	ND	0.50		ND	2.0	
1,2-Dichloroethane	107-06-2	98.96	ND	0.50		ND	2.0	
Benzene	71-43-2	78.11	ND	0.50		ND	1.6	
Trichloroethene	79-01-6	131.4	ND	0.50		ND	2.7	
1,2-Dichloropropane	78-87-5	113.0	ND	0.50		ND	2.3	
Methyl Methacrylate	80-62-6	100.12	ND	0.50		ND	2.0	
Bromodichloromethane	75-27-4	163.8	ND	0.50		ND	3.3	
1,4-Dioxane	123-91-1	88.12	ND	0.50		ND	1.8	
4-Methyl-2-pentanone(MIBK)	108-10-1	100.2	ND	0.50		ND	2.0	

EMSL Analytical
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856)858-4800 / (856)858-4571
http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491900072**
EMSL Sample #: **491900072-1**
Customer ID: **SREC85**
Customer PO: **Not Available**

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**
Date Collected: **1/29/2019**
Date Received: **1/30/2019**

Project: **EPA - Floor 2 Clearance**
Sample ID: EPA Floor 2

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	01/31/2019	TP	P4789.D	E0432	322.5 cc	1

Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
cis-1,3-Dichloropropene	10061-01-5	111.0	ND	0.50		ND	2.3	
Toluene	108-88-3	92.14	**0.81**	0.50		**3.0**	1.9	
trans-1,3-Dichloropropene	10061-02-6	111.0	ND	0.50		ND	2.3	
1,1,2-Trichloroethane	79-00-5	133.4	ND	0.50		ND	2.7	
2-Hexanone(MBK)	591-78-6	100.1	ND	0.50		ND	2.0	
Tetrachloroethene	127-18-4	165.8	ND	0.50		ND	3.4	
Dibromochloromethane	124-48-1	208.3	ND	0.50		ND	4.3	
1,2-Dibromoethane	106-93-4	187.8	ND	0.50		ND	3.8	
Chlorobenzene	108-90-7	112.6	ND	0.50		ND	2.3	
Ethylbenzene	100-41-4	106.2	ND	0.50		ND	2.2	
Xylene (p,m)	1330-20-7	106.2	ND	1.0		ND	4.3	
Xylene (Ortho)	95-47-6	106.2	ND	0.50		ND	2.2	
Styrene	100-42-5	104.1	ND	0.50		ND	2.1	
Isopropylbenzene (cumene)	98-82-8	120.19	ND	0.50		ND	2.5	
Bromoform	75-25-2	252.8	ND	0.50		ND	5.2	
1,1,2,2-Tetrachloroethane	79-34-5	167.9	ND	0.50		ND	3.4	
4-Ethyltoluene	622-96-8	120.2	ND	0.50		ND	2.5	
1,3,5-Trimethylbenzene	108-67-8	120.2	ND	0.50		ND	2.5	
2-Chlorotoluene	95-49-8	126.6	ND	0.50		ND	2.6	
1,2,4-Trimethylbenzene	95-63-6	120.2	ND	0.50		ND	2.5	
1,3-Dichlorobenzene	541-73-1	147.0	ND	0.50		ND	3.0	
1,4-Dichlorobenzene	106-46-7	147.0	ND	0.50		ND	3.0	
Benzyl chloride	100-44-7	126.0	ND	0.50		ND	2.6	
1,2-Dichlorobenzene	95-50-1	147.0	ND	0.50		ND	3.0	
1,2,4-Trichlorobenzene	120-82-1	181.5	ND	0.50		ND	3.7	
Hexachloro-1,3-butadiene	87-68-3	260.8	ND	0.50		ND	5.3	
Naphthalene	91-20-3	128.17	ND	0.50		ND	2.6	
Total Target Compound Concentrations:			**36**	**ppbv**		**77**	**ug/m3**	

Surrogate	Result	Spike	Recovery
4-Bromofluorobenzene	10	10	100%

Qualifier Definitions

ND = Non Detect

B = Compound also found in method blank.

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air…" Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).

EMSL Analytical
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856)858-4800 / (856)858-4571
http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491900072**
EMSL Sample #: **491900072-1**
Customer ID: **SREC85**
Customer PO: **Not Available**

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**
Date Collected: **1/29/2019**
Date Received: **1/30/2019**

Project: **EPA - Floor 2 Clearance**

Sample ID: EPA Floor 2

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	01/31/2019	TP	P4789.D	E0432	322.5 cc	1

Tentatively Identified Compound Results Summary

Tentatively Identified Compounds	CAS#	MW(1)	Result ppbv	Q	Result ug/m3	Retention Time	Comments
Propane	000074-98-6	44	**2.6**	JN	**4.7**	5.19	
Isobutane	000075-28-5	58	**2.3**	JN	**5.5**	5.68	
Butane, 2-methyl-	000078-78-4	72	**1.4**	JN	**4.2**	7.79	
Pentane	000109-66-0	72	**1.9**	JN	**5.7**	8.73	
Total TIC Concentrations:			**8.2**	**ppbv**	**20**	**ug/m3**	

Qualifier Definitions

(1) = If unknown, MW is assigned as equivalent Toluene (92) for ug/m3 conversion purposes.

B = Compound also found in method blank.

J= Estimated value based on a 1:1 response to internal standard.

N= Presumptive evidence of compound based on library match.

Method Reference

USEPA: Compendium Method TO-15, “Determination of Volatile Organic Compounds (VOCs) in Air…" Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).

EMSL Analytical
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856)858-4800 / (856)858-4571
http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491900072**
EMSL Sample #: **491900072-1**
Customer ID: **SREC85**
Customer PO: **Not Available**

Attn: **Alex Green**
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: **303-297-1645**
Fax: **303-297-1646**
Date Collected: **1/29/2019**
Date Received: **1/30/2019**

Project: **EPA - Floor 2 Clearance**
Sample ID: EPA Floor 2

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	01/31/2019	TP	P4789.D	E0432	322.5 cc	1

Total Volatile Organic Compounds (TVOC) Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
Freon 12(Dichlorodifluoromethane)	75-71-8	120.90	**0.51**	0.50		**2.5**	2.5	
Chloromethane	74-87-3	50.49	**0.52**	0.50		**1.1**	1.0	
n-Butane	106-97-8	58.12	**6.9**	0.50		**16**	1.2	
Ethanol	64-17-5	46.07	**13**	0.50		**24**	0.94	
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	**1.5**	0.50		**3.7**	1.2	
Acetone	67-64-1	58.08	**3.2**	0.50		**7.5**	1.2	
Acetonitrile	75-05-8	41.00	**7.5**	0.50		**13**	0.84	
n-Hexane	110-54-3	86.17	**0.72**	0.50		**2.5**	1.8	
Ethyl acetate	141-78-6	88.10	**0.96**	0.50		**3.4**	1.8	
Toluene	108-88-3	92.14	**0.81**	0.50		**3.0**	1.9	
Total Target Compound Concentrations:			**36**	**ppbv**		**77**	**ug/m3**	

Qualifier Definitions

B = Compound also found in method blank.

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.

Tentatively Identified Compounds	CAS#	MW(1)	Result ppbv		Q	Result ug/m3	Retention Time	Comments
Propane	000074-98-6	44	**2.6**		JN	**4.7**	5.19	
Isobutane	000075-28-5	58	**2.3**		JN	**5.5**	5.68	
Butane, 2-methyl-	000078-78-4	72	**1.4**		JN	**4.2**	7.79	
Pentane	000109-66-0	72	**1.9**		JN	**5.7**	8.73	
Total TIC Concentrations:			**8.2**	**ppbv**		**20**	**ug/m3**	

Qualifier Definitions

(1) = If unknown, MW is assigned as equivalent Toluene (92) for ug/m3 conversion purposes.

B = Compound also found in method blank.

J= Estimated value based on a 1:1 response to internal standard.

N= Presumptive evidence of compound based on library match.

Total Volatile Organic Compounds (TVOCs):	44	ppbv	100	ug/m3

USEPA TO-15
External Chain of Custody/ Field Test Data Sheet

EMSL ANALYTICAL, INC.

EMSL Analytical, Inc.
200 Route 130 North
Cinnaminson, NJ 08077
Ph. (800) 220-3675
Fax (856) 786-0327

EMSL Order Number (Lab Use Only): 491900072

Report To Contact Name: ALEX GREEN	Bill To Company: SAME	Sampled By (Sign):
Company Name: SER ENVIRONMENTAL	Attention To:	Sampled By (Name): TOM ZIEGLER
Address 1: 5801 LOGAN ST #200	Address 1:	Total # of Samples: 1
Address 2: DENVER CO 80216	Address 2:	Date Shipped:
Phone No.: Fax:	Phone No.: Fax:	Sample Collection Zip Code: 80203
Email Results To: ALEX@SERENVIRONMENTALCONSULTING.COM	Project Name: EPA - FLOOR 2 CLEARANCES	Purchase Order:

Turnaround Time (In Business Days): ☐ 10 Day Standard ☐ 5 Day ☐ 4 Day ☐ 3 Day ☐ 2 Day ☒ 1 Day ☐ Other

Reporting Format: ☐ Results Only (Standard Lab Report) ☐ Full Deliverables (Surcharge may apply) ☐ Other

EMSL Sample Identifier	Client Field Sample Identification	Field Use - All Information Required! Sampling Start Information Barometric Pres. ("Hg): Start Date	Time (24 hr clock)	Canister Pressure ("Hg)	Interior Temp. (F)	Sampling Stop Information Barometric Pres. ("Hg): Stop Date	Time (24 hr clock)	Canister Pressure ("Hg)	Interior Temp. (F)	Lab Use Only Canister Information: Canister ID	Size (L)	Can Cert Batch ID	Outgoing Pressure ("Hg)	Incoming Pressure ("Hg)	Flow Contoller: Reg. ID	Cal Flow (ml/min)	Analysis: USEPA TO-15	NJDEP LLTO-15	LIBRARY SEARCH	Other (Specify)	Matrix: Indoor/ Ambient Air	Soil Gas	Landfill/ Vent
	EPA Floor 2	1-29-19	8:45	26	70	1-29-19	13:60	3		E0432	6	C3679	-29.2	-7.0	8061	21.2	X		X		X		

2019 JAN 30 A 10:54

Comments:

Relinquished by:	Date/ Time	Received by:	Date/ Time	Seal #/Intact
Carly Peters	1/24/19 1545	FedEx	1/30 10:40	293
	1-29-19			
FedEx	1/30 10:40	Jane Doe Airbox	1/30/19 1305	

Lab Canister Certification
Analyst Signature (TO-15):

Reason for Exchange (circle appropriate)

(Shipping)	Courier	Receiving	Sampling	Other:
Shipping	Courier	Receiving	Sampling	Other:
Shipping	Courier	Receiving	Sampling	Other: AN
Shipping	Courier	Receiving	Sampling	Other:
Shipping	Courier	Receiving	Sampling	Other:

4919000072

TO-15 Sample Information

Please fill out this worksheet in addition to the Chain of Custody form. This information helps us to best analyze your samples, achieve requested TAT, and provide you with helpful interpretation information.

Company: S&R Environmental Consulting

Contact Person:

Name: Alex Green

E-mail: Alex@srenvironmentalconsulting.com

Additional E-mails: Tom@srenvironmentalconsulting.com

Telephone #: 303-548-1175

Library Search requested: [X] YES [ ] NO

A library search (*aka Tentatively Identified Compounds*) will identify up to 20 of the largest, non-target peaks that are not part of the standard TO-15 list of 74 compounds. If you are performing an Indoor Air Quality or odor investigation, the library search is recommended to provide you with all available information for your sample.

Sample Type:

[X] Indoor Air Quality (Home/Office)
[ ] IAQ (Industrial)
[ ] Other:
[ ] Soil Gas/Sub Slab

Sample Description: EPA - Floor 2 Clearance

2019 JAN 30 A 10:54
RECEIVED
EMSL
CINNAMINSON, N.J.

PLEASE NOTE: The result forms we provide will not indicate whether your results have exceeded any Exposure Limit criteria established by any regulatory agency. If you would like that information, please check off below which regulatory comparison forms you would like to receive.

[ ] OSHA PELs/NIOSH RELs	*combined form*		
[ ] EPA RSLs - *11/2017; default is THQ 0.1*	Residential	Industrial	
[ ] EPA VISLs - *3/2012*	IA/SG		
[ ] NJ DEP - *1/2018* - Circle one:	VI-Indoor AQ	VI-Soil Gas	
[ ] NC DENR - *4/2014* - Circle one:	Residential	Non-residential	
[ ] PA DEP - *11/2016*	Indoor Air		
[ ] PA DEP - 11/2016: Sub Slab Soil Gas OR Near Source Soil Gas			
[ ] CA HHSL - *11/2004* - Circle one:	Indoor Air	Soil Gas	

[ ] Potential Sources of Compounds found in your IAQ sample
[X] TVOC (Library Search Required for this format)

[ ] NH DES_WMD - *2/2012*	Indoor Air	Soil Gas
[ ] Ohio - *4/2013* - Circle one:	Residential	Commercial

[ ] Indiana Dept Env Mgmt Screeening Levels - *3/2016*
[ ] Vermont DEP IROCP - *4/2012* (soil gas only)
[ ] California OEHHA - *2/2012*
[ ] Other; these are the compounds I want reported:

Please note: There is an additional charge for any of the tests below. **USEPA TO-3 AND ASTM 5504 analyses can be performed from your canister at the Cinnaminson NJ Laboratory.**

US EPA TO-3 via GC/FID **(choose one below):**

[ ] C_1-C_6 hydrocarbons
[ ] Methane only

ASTM-D5504 *via GC/SCD* **(choose one below):***

[ ] Sulfur Scan (H_2S, COS, MeSH, EtSH, DMS)
[ ] H_2S only

Note** : **Hold time for sulfur gases is 1 day from collection. Please schedule your sample collection so samples are received in the lab prior to noon on Friday. Analysis performed out of hold time will have a notation in the report.

We can provide the following CMS tests from your canisters at the **Cinnaminson and Huntington Beach** laboratories. Please note these tests are to be used for IAQ/Screening purposes ONLY. EMSL recommends alternate field sampling techniques for these parameters (with the exception of water vapor); please contact your sales rep for the proper media. Please note: There is an additional charge for any of the tests below.

Draeger CMS Analyzer:
[X] CO [X] CO_2 [ ] NH_3 [ ] O2 [ ] Water Vapor

Sample Retention Policy: All canisters are guaranteed to be retained for one day after results are reported. Please review your results promptly to ensure your project scope is fully addressed. Cans may be retained for a longer period of time, but arrangements to hold your cans must be made through your customer account representative quickly. Thank you.

USEPA TO-15
External Chain of Custody/ Field Test Data Sheet

EMSL Analytical, Inc.
200 Route 130 North
Cinnaminson, NJ 08077
Ph. (800) 220-3675
Fax (856) 786-0327

EMSL ANALYTICAL, INC.

EMSL Order Number (Lab Use Only): 491900072

Report To Contact Name: ALEX GREEN	Bill To Company: SAME	Sampled By (Sign):	
Company Name: SER ENVIRONMENTAL	Attention To:	Sampled By (Name): TOM ZIEGLER	
Address 1: 5801 LOGAN ST #200	Address 1:	Total # of Samples: 1	
Address 2: DENVER CO 80216	Address 2:	Date Shipped:	
Phone No.: Fax:	Phone No.: Fax:	Sample Collection Zip Code: 80203	
Email Results To: ALEX@SERENVIRONMENTALCONSULTING.COM	Project Name: EPA - FLOOR 2 CLEARANCES	Purchase Order:	

Turnaround Time (In Business Days): ☐ 10 Day Standard ☐ 5 Day ☐ 4 Day ☐ 3 Day ☐ 2 Day ☒ 1 Day ☐ Other

Reporting Format: ☐ Results Only (Standard Lab Report) ☐ Full Deliverables (Surcharge may apply) ☐ Other

EMSL Sample Identifier	Client Field Sample Identification	Field Use - All Information Required! Sampling Start Information Barometric Pres. ("Hg): Start Date	Time (24 hr clock)	Canister Pressure ("Hg)	Interior Temp. (F)	Sampling Stop Information Barometric Pres. ("Hg): Stop Date	Time (24 hr clock)	Canister Pressure ("Hg)	Interior Temp. (F)	Lab Use Only Canister Information: Canister ID	Size (L)	Can Cert Batch ID	Outgoing Pressure ("Hg)	Incoming Pressure ("Hg)	Flow Contoller: Reg. ID	Col Flow (ml/min)	Analysis: USEPA TO-15	NJDEP LLTO-15	LIBRARY SEARCH	Other (Specify)	Matrix: Indoor/ Ambient Air	Soil Gas	Landfill/ Vent
	EPA FLOOR 2	1-29-19	8:45	26	70	1-29-19	13:00	3		E0432	6	3679	-29.2		8061	21.2	X		X		X		

Comments:

Lab Canister Certification
Analyst Signature (TO-15):

Relinquished by:	Date/ Time	Received by:	Date/ Time	Seal #/Intact
Carly Potter	1/24/19 1545	[illegible] FX	1/30 10:40	293
[illegible]	1-29-19			
[illegible]	1/30 10:40			

Reason for Exchange (circle appropriate)

(Shipping) Courier Receiving Sampling Other:
Shipping Courier Receiving Sampling Other:
Shipping Courier Receiving Sampling Other:
Shipping Courier Receiving Sampling Other:
Shipping Courier Receiving Sampling Other:

491900072.

TO-FM-12 Sample Information
Revision 10
Effective Date: May 25, 2018

TO-15 Sample Information

Please fill out this worksheet in addition to the Chain of Custody form. This information helps us to best analyze your samples, achieve requested TAT, and provide you with helpful interpretation information.

Company: S&R ENVIRONMENTAL CONSULTING

Contact Person:

Name: ALEX GREEN

E-mail: ALEX@SRENVIRONMENTALCONSULTING.COM

Additional E-mails: TOM@SRENVIRONMENTALCONSULTING.COM

Telephone #: 303-548-1175

Library Search requested: [X] YES [ ] NO

A library search (*aka Tentatively Identified Compounds*) will identify up to 20 of the largest, non-target peaks that are not part of the standard TO-15 list of 74 compounds. If you are performing an Indoor Air Quality or odor investigation, the library search is recommended to provide you with all available information for your sample.

Sample Type:

[X] Indoor Air Quality (Home/Office)
[ ] IAQ (Industrial)
[ ] Other:
[ ] Soil Gas/Sub Slab

Sample Description: EPA - FLOOR 2 CLEARANCE

RECEIVED
EMSL
CINNAMINSON, N.J.
2019 JAN 30 A 10:54

PLEASE NOTE: The result forms we provide will not indicate whether your results have exceeded any Exposure Limit criteria established by any regulatory agency. If you would like that information, please check off below which regulatory comparison forms you would like to receive.

[ ] OSHA PELs/NIOSH RELs *combined form*
[ ] EPA RSLs - *11/2017; default is THQ 0.1* Residential Industrial
[ ] EPA VISLs - *3/2012* IA/SG
[ ] NJ DEP - *1/2018* - Circle one: VI-Indoor AQ VI-Soil Gas
[ ] NC DENR - *4/2014* - Circle one: Residential Non-residential
[ ] PA DEP - *11/2016* Indoor Air
[ ] PA DEP - 11/2016: Sub Slab Soil Gas OR Near Source Soil Gas
[ ] CA HHSL - *11/2004* - Circle one: Indoor Air Soil Gas

[ ] Potential Sources of Compounds found in your IAQ sample
[X] TVOC (Library Search Required for this format)
[ ] NH DES_WMD - *2/2012* Indoor Air Soil Gas
[ ] Ohio - *4/2013* - Circle one: Residential Commercial
[ ] Indiana Dept Env Mgmt Screeening Levels - *3/2016*
[ ] Vermont DEP IROCP - *4/2012* (soil gas only)
[ ] California OEHHA - *2/2012*
[ ] Other; these are the compounds I want reported:

Please note: There is an additional charge for any of the tests below. **USEPA TO-3 AND ASTM 5504 analyses can be performed from your canister at the Cinnaminson NJ Laboratory.**

US EPA TO-3 via GC/FID **(choose one below):**
[ ] C_1-C_6 hydrocarbons
[ ] Methane only

ASTM-D5504 *via GC/SCD* **(choose one below):***
[ ] Sulfur Scan (H_2S, COS, MeSH, EtSH, DMS)
[ ] H_2S only

***Note**: Hold time for sulfur gases is 1 day from collection. Please schedule your sample collection so samples are received in the lab prior to noon on Friday. Analysis performed out of hold time will have a notation in the report.*

We can provide the following CMS tests from your canisters at the Cinnaminson and Huntington Beach laboratories. Please note these tests are to be used for IAQ/Screening purposes ONLY. EMSL recommends alternate field sampling techniques for these parameters (with the exception of water vapor); please contact your sales rep for the proper media. Please note: There is an additional charge for any of the tests below.

Draeger CMS Analyzer:
[X] CO [X] CO_2 [ ] NH_3 [ ] O2 [ ] Water Vapor

***Sample Retention Policy:** All canisters are guaranteed to be retained for one day after results are reported. Please review your results promptly to ensure your project scope is fully addressed. Cans may be retained for a longer period of time, but arrangements to hold your cans must be made through your customer account representative quickly. Thank you.*

12421 W. 49TH AVENUE, UNIT #6
WHEAT RIDGE, CO 80033 (303) 463-8270

CRYSTALLINE SILICA ANALYSIS - AIR
NIOSH 7500 METHOD - PAGE 1 OF 2

CLIENT:
S&R ENVIRONMENTAL CONSULTING
5801 LOGAN STREET, SUITE 200
DENVER, CO 80216

ANALYSIS DATE: 1-30-19
REPORTING DATE: 1-30-19
RECEIPT DATE: 1-29-19
CLIENT JOB NO.: EPA
PROJECT TITLE: FLOOR-2
DCMSL PROJECT: SREC976,977

DCM NO.	CLIENT SAMPLE NO.	AIR VOLUME (L)	TOTAL MINUTES	DUST (1) (µg)	DUST CONCENTRATION (µg/m^3)	MEASURED QUARTZ (µg)	QUARTZ CONCENTRATION (µg/m^3)	8 HOUR TWA (µg/m^3)	QUARTZ %
-1R	185880	196	80	14	71	BLD	BLD	BLD	BLD
-2R	185884	105	80	<1	<1	BLD	BLD	BLD	BLD

BLD - BELOW THE ESTIMATED LIMIT OF DETECTION FOR THE METHOD (LESS THAN 5µg).

N - INFORMATION NOT PROVIDED BY CLIENT.

(1) DUST IS CONSIDERED RESPIRABLE BASED ON SAMPLING METHOD. SAMPLES MUST BE COLLECTED USING A CYCLONE DEVICE TO BE CONSIDERED RESPIRABLE.

THE SAMPLE(S) WAS/WERE WEIGHED WITH A METTLER XP56 MICROBALANCE WITH A REPORTING LIMIT OF ±0.006mg. THE BALANCE IS CERTIFIED WITHIN INSTRUMENT SPECIFICATIONS AND TRACEABLE TO NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY.

THE SAMPLE(S) WAS/WERE ANALYZED USING THE NIOSH 7500 METHOD AND OSHA METHOD ID-142. THE FILTERS WERE ASHED AND THE ASHED RESIDUE WAS DEPOSITED ON 25mm SILVER FILTERS AND ANALYZED IN CONJUNCTION WITH PREPARED STANDARDS OF CRYSTALLINE SILICA. CLIBRATION CURVES ARE ESTABLISHED FOR CRYSTALLINE SILICA USING NIST AND NIOSH STANDARD REFERENCE MATERIALS. SAMPLE INTENSITIES WERE CALCULTATED RELATIVE TO CALIBRATION CURVES. THE QUANTITATIVE DETECTION LIMIT OF CRYSTALLINE SILICA FOR THIS METHOD IS 5µg QUARTZ AND 10µg CRISTOBALITE/TRIDYMITE THE COEFFICIENT OF VARIATION OF TIS METHOD AS STATED BY NIOSH 7500 IS 0.09 FOR CONCENTRATIONS BETWEEN 25µg AND 2500µg. ALL CALCULATIONS ARE BASED UPON THOSE IN NIOSH 7500, OSHA AND MSHA METHODS.

THE FILTER MATERIAL WAS PREPARED AND SCANNED BY X-RAY DIFFRACTION TO DETERMINE THE PHASES OF CRYSTALLINE SILICA PRESENT IN THE SAMPLES. IDENTIFIED CRYSTALLINE SILICA POLYMORPHS WERE SCANNED OVER PRINCIPAL PEAKS USING A SLOW SCAN RATE TO DETERMINE CONCENTRATION. CRISTOBALITE AND TRIDYMITE WERE NOT IDENTIFIED IN THE SAMPLES. THEREFORE, THE TOTAL CONCENTRATION OF CRYSTALLINE SILICA IS DERIVED FROM THE CONCENTRATION OF QUARTZ.

DCM SCIENCE LABORATORY, INC.

12421 W. 49TH AVENUE, UNIT #6
WHEAT RIDGE, CO 80033 (303) 463-8270

CRYSTALLINE SILICA ANALYSIS - AIR
NIOSH 7500 METHOD - PAGE 2 OF 2

CLIENT:
S&R ENVIRONMENTAL CONSULTING
5801 LOGAN STREET, SUITE 200
DENVER, CO 80216

ANALYSIS DATE:	1-30-19
REPORTING DATE:	1-30-19
RECEIPT DATE:	1-29-19
CLIENT JOB NO.:	EPA
PROJECT TITLE:	FLOOR-2
DCMSL PROJECT:	SREC976,977

NO BLANKS WERE SUBMITTED BY THE CLIENT. THE RESULTS ARE NOT BLANK CORRECTED.

THE SAMPLE(S) WAS/WERE RECEIVED IN ACCEPTABLE CONDITION. THIS TEST REPORT RELATES ONLY TO THE ITEMS TESTED. THIS REPORT MAY NOT BE REPRODUCED EXCEPT IN FULL WITHOUT THE WRITTEN WRITTEN APPROVAL OF THE LABORATORY.

Lab ID # 101526

Jason Barnes

JASON BARNES, ANALYST

DCM SCIENCE LABORATORY, INC.
12421 W. 49th Avenue, Unit #6
Wheat Ridge, CO 80033

(303) 463-8270/(800) 852-7340
(303) 463-8267 – fax

Date/Time Received_____ DCMSL Group No._____ DCMSL Log No._____

Field Data Sheet/Chain of Custody

Samples Submitted By: Tom Ziegler
Company: SER Environmental
Address: 5801 Logan St #200

Contact: Tom Ziegler
Phone: 720-317-4259
Cell:
Email: Tom & Alex

Job/P.O. # EPA
Project Title Floor - 2

Archive: Samples are archived for 6 months unless other arrangements are made.

Turnaround Time Requested:
[ ] Standard (3 to 5 Business Days)
[X] 24 Hour Rush

Procedure Requested:
DUST & SILICA
[X] Dust – NIOSH 0500/0600
[X] Silica – Air NIOSH 7500 (Quartz Only)
[ ] Silica – Air NIOSH 7500 (All Polymorphs)

	Cassette No.:	Employee or Other Information	Air Volume	Minutes
1	185880	RESP DUST	196 L	80 min
2	185884	TOTAL DUST	105 L	80 min
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				

Relinquished By:	Date/Time	Received By:	Date/Time
		Umeffor	1-29-19 3:00

2/19/18 cm/dh

Wisconsin Occupational Health Laboratory
WISCONSIN STATE LABORATORY OF HYGIENE
UNIVERSITY OF WISCONSIN-MADISON

2601 Agriculture Drive
Madison, WI 53718
Phone: (800) 446-0403
Fax: (608) 224-6213
Web: wohl-lab.org

ALEX GREEN

S & R ENVIRONMENTAL CONSULTING

STE 200

5801 LOGAN ST

DENVER, CO 80216

Lab Workorder ID	429481
Visit/Project ID	EPA - FLOOR 2
PO	
Received	February 1, 2019
Reported	February 8, 2019
Report ID	6175856
Previous Report IDs	

Dear ALEX GREEN:

Enclosed are the analytical results for sample(s) received by the laboratory on February 1, 2019. All samples received were acceptable, results were not blank corrected, and all quality control met laboratory standards unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact the lab.

Sincerely,

Steve Strebel, Laboratory Director

Analyst - JOHN GLOWACKI

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Final Report

Lab ID: **429481001**	Sample ID: **CAP-EPA-FLOOR 2**	Media: **OVS-7 TUBE**
Sampling Date: **1/29/2019**	Matrix: **Air**	Sampled Time:

					RESULT				
Analyte	**Method**	**Analysis Date**	**Air Volume**	**Reporting Limit**	**Front**	**Rear**	**Total**	**Air Concentration**	**TWA**
Caprolactam (Dust and Vapor)	OSHA PV2012	2/6/2019	100 L	1.5 ug	<1.5 ug	<1.5 ug	<1.5 ug	<0.015 mg/m3	

Abbreviations:
mg = milligrams ppm or ppmv = parts per million /m3 = per cubic meter
ug = micrograms ppb or ppbv = parts per billion ng = nanograms
< Less Than. The analyte, if present, is at a level too low to be accurately quantitated by the method used

End of Analytical Report

The results in this report apply only to the samples, specifically listed above, and tested at the Wisconsin Occupational Health Laboratory